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ERRATA.

Page 93, line 19 from bottom, *for* "Pl. V. fig. 8," *read* "Pl. V. fig. 1."

Page 163, line 12 from bottom, *for* "Pl. V.* fig. 2," *read* "Pl. V.* fig. 5."

Page 315. In the List of New Species, *dele Thestias dissimilis.*

Page 327, line 12 from bottom, *for* "$1\frac{7}{8}$ inch to $2\frac{1}{8}$ inches," *read* "$1\frac{1}{8}$—$1\frac{7}{8}$ inch."

OCT. 13, 1888

PHYTOPHAGA MALAYANA.

Fam. SAGRIDÆ, Lacordaire.

Genus Sagra, Fabr.
Lac. Mon. Phyt. i. p. 21.

1. *Sagra Buquetii*, Lesson.
Lac. Mon. Phyt. i. p. 26.

" Viridis, elytrorum sutura antice late postice anguste aureo-purpurea; antennis vix longitudine dimidii corporis; prothorace subquadrato, margine antico parum producto, sinuato, angulis anticis valde prominulis; elytris intra humeros profunde impressis, impunctatis.

Mas.—Elongatus, cuneiformis, undique subtiliter coriaceus, opacus; femoribus posticis validissimis, elytra longe superantibus, subtus in medio bi-apice tridentatis; tibiis ejusdem paris difformibus, intus tomentosis, bi-arcuatis, apice contortis, mucronatis bidentatisque, dente externo longiori.

Long. 14—16 lin.

Fœm.—Minor, breviter oblonga, præsertim in elytris nitida; femoribus posticis elytris nonnihil longioribus, subtus crista crenulata denteque parvo instructis; tibiis ejusdem paris simplicibus, arcuatis, apice breviter mucronatis.

Long. 10—12 lin." (Lacordaire.)

Var. A (*mas*). Minor; femoribus posticis subtus tridentatis; tibiis ejusdem paris simplicibus.

Sagra perlucida, Lac. Mon. Phyt. i. p. 46.

Hab. Java, Manilla, Penang, Sumatra.

2. *Sagra chrysochlora*, Lac.
Mon. Phyt. i. p. 35.

" Aurata, viridi-nitens; antennis validis, dimidio corpore longioribus; prothorace nonnihil elongatulo, margine antico pro-

ducto, rotundato, angulis anticis sat prominulis; elytris intra humeros profunde impressis, subtiliter coriaceis, gemellato-punctato-striatis, striis pro maxima parte deletis."
Long. 10—12 lin. (Lacordaire.)
Mas et *Fœm.*—Femoribus tibiisque posticis ut in *S. Druryi.*
Hab. Java.

3. *Sagra Druryi*, Lac.
Mon. Phyt. i. p. 32.

"Aurata, viridi-nitens, (aut tota æneo-cuprea); antennis validis, vix longitudine dimidii corporis; prothorace subquadrato, antice minus producto, angulis anticis sat prominulis; elytris intra humeros valde impressis, subtilissime coriaceis, gemellato-punctato-striatis, striis pro maxima parte deletis.
Mas.—Femoribus posticis elongato-incrassatis, elytra valde superantibus, apice bidentatis, dente antico majori; tibiis ejusdem paris apice mucronatis bidentatisque, dente externo valido.
Fœm.—Femoribus posticis elytris vix longioribus, subtus ante apicem crista brevi crenulata instructis; tibiis ejusdem paris arcuatis, apice mucronatis." (Lacordaire.)
Long. 8—10½ lin.
Var. A (*mas*). Minor; femoribus posticis subtus tridentatis.
Var. B (*mas*). Minor; femoribus posticis subtus bidentatis, tibiis ejusdem paris simplicibus.
Sagra Weberi, Lac. Mon. Phyt. i. p. 50.
Hab. Java and Borneo (sec. Lacordaire); also India (Assam), Ceylon.

I have not seen any specimens of this insect from Java; mine from that locality, which were formerly placed by me under this species, belong to *S. mutabilis.*

4. *Sagra speciosa*, Lac.
Mon. Phyt. i. p. 38.

"Viridi-aurea, purpureo-splendens; pectore pedibusque igneis, antennis longitudine dimidii corporis, prothorace subquadrato, planiusculo, margine antico vix producto, angulis anticis sat prominulis; elytris intra humeros modice impressis, gemellato-punctato-striatis, striis internis basi omnibus ante apicem deletis." (Lacordaire.)
Mas.—Femoribus posticis ut in *S. Druryi;* tibiarum posticarum dente interno obtuso.

Fœm.—Femoribus posticis ut in *S. Druryi;* tibiis ejusdem paris arcuatis, apice breviter mucronatis.

Long. $7\frac{1}{2}$—9 lin.

Var. A (*mas*). Femoribus posticis subtus apice tridentatis, dente medio majori; tibiis ut in typo.

Sagra splendida, Oliv. v. p. 497, pl. 1, fig. 2, a. b.

Var. B (*mas*). Minor; femoribus posticis subtus apice tri- aut bi-dentatis, tibiis posticis simplicibus.

Var. C. Corpore sordide viridi-æneo.

Hab. Java; var. C, Flores.

The elytra are more elevated at the base, and more deeply depressed transversely below the basilar space than in *S. Druryi* or *mutabilis*, the next species; their surface is also more coarsely punctured than in either of these two insects.

5. *Sagra mutabilis*, Baly.

Ann. and Mag. of Nat. Hist. Dec. 1864, p. 433.

Supra subopaca, subtus nitida; antennis extrorsum nigro-purpureis; thorace subquadrato, antice vix producto, angulis anticis modice prominulis; elytris basi thorace multo latioribus, humeris subprominulis, a basi ad apicem angustatis, supra convexis, intra humeros sat profunde impressis, subtiliter coriaceis, infra basin minus profunde transversim impressis, tenuissime gemellato-punctato-striatis, striis fere omnino deletis.

A. Corpus rufo-igneum.

B. Corpus viridi-aureum.

C. Corpus viridi-cæruleum.

D. Corpus purpureum.

Mas.—Femoribus posticis sat elongato-incrassatis, elytra sat superantibus, subtus bidentatis, dente antico majore; tibiis ejusdem paris apice mucronatis bidentatisque, dente exteriore valido, abdominis segmento primo deplanato, crebre punctato, tomentoso.

Fœm.—Elytris oblongis, postice minus angustatis; femoribus posticis elytra vix superantibus, subtus ante apicem crista brevi instructis; tibiis ejusdem paris apice breviter mucronatis.

Long. 8—11 lin.

Var. A (*mas*). Minor; femoribus posticis subtus tri- vel bi-dentatis, tibiis ejusdem paris simplicibus.

Hab. Java, Flores; also Cambodia, whence it has been sent by the late Mons. Mouhot, in great abundance.

This fine species is most closely allied to *S. speciosa*, Lac.: it agrees so completely in nearly all its characters with that insect that a detailed description would be almost useless. I shall therefore confine myself to the points of difference between the two insects.

In *S. mutabilis* ♂ the antennæ are equally long, but stouter; the thorax is usually (but not always) slightly broader; the elytra are much broader at their base, the humeral callus being more prominent, and causing the base of the elytra to appear more abruptly truncate; they are shorter in proportion to their basal breadth, and at the same time more quickly narrowed from base to apex, thus being less parallel and more regularly wedge-shaped; they are less deeply depressed transversely below the basilar space, their surface is more finely punctured and opake. The hinder thighs are shorter, thicker, and less attenuated towards their apex; viewed laterally, they are suddenly thickened at their base, and then gradually increase in width to beyond their middle; in *S. speciosa* they increase more gradually at first, but remain for some distance in the middle at nearly the same width; viewed from above, the outer edge in *S. mutabilis* is more regularly curved, the thickest portion of the femur being about or just beyond the middle; in *S. speciosa*, on the other hand, the thigh is more attenuated from its middle to its apex, the thickest part being rather before than at the middle itself. In the female the elytra are oblong-ovate, and not narrowed from base to apex as in the male; but I do not know any characters by which the ♀ can be separated with certainty from the same sex of *S. speciosa*, *S. Druryi*, and other allied species.

6. *Sagra superba*, Lac.

Mon. Phyt. i. p. 39.

"Viridi-aurata, subnitida; antennis vix longitudine dimidii corporis, prothorace latitudine antica nonnihil longiore, margine antico minus producto, subsinuato, angulis anticis parum prominulis; elytris intra humeros modice impressis, gemellato-punctato-striatis, striis pro maxima parte deletis.

Mas.—Femoribus posticis validissimis, elytris valde longioribus, subtus apice profunde sinuatis denteque valido armatis, sinu

ipso intus tomentoso ; tibiis ejusdem paris apice mucronatis bidentatisque, dente externo valido, interno minuto."

Long. 11 lin. (Lacordaire.)

Var. A. Minor; tibiis posticis simplicibus.

Sagra Fabricii, Lac. Mon. Phyt. i. p. 52.

Hab. Java.

7. *Sagra quadraticollis*, Lac.

Mon. Phyt. i. p. 40.

"Cæruleo-virescens, supra subopaca; antennis validis, longitudine dimidii corporis; prothorace subtransverso, margine antico vix producto, subsinuato, angulis anticis parum prominulis; elytris intra humeros modice impressis, gemellato-punctato-striatis, striis partim deletis.

Mas.—Femoribus posticis elongato-incrassatis, elytris valde longioribus, subtus apice profunde sinuatis denteque valido armatis, sinu ipso intus leviter tomentoso ; tibiis posticis ut in *S. superba.*

Fœm.—Femoribus posticis elytra vix superantibus, subtus apice crista denticulata brevi præditis ; tibiis ejusdem paris basi arcuatis, dein subrectis, apice breviter mucronatis."

Long. 9—10½ lin. (Lacordaire.)

Hab. Java, Borneo, Celebes.

8. *Sagra Pfeifferæ*, Baly.

Trans. Ent. Soc. N. S. vol. v. p. 239.

Oblongo-ovata, crassa, viridi-ænea, cæruleo-micans, subnitida ; antennis extrorsum nigris; thorace subquadrato, antice vix producto, angulis anticis parum prominulis ; elytris ovatis, basi truncatis, intra humeros modice impressis, tenuiter reticulato-strigosis, insterstitiis ad apicem crenulatis ; gemellato-punctato-striatis, striis fere deletis.

Mas.—Femoribus posticis valde incrassatis, elytra fere dimidio longitudinis superantibus, subtus apice profunde sinuatis, sinu intus fulvo-tomentoso, dentibus duobus validis armatis, horum secundo ad angulum posticum emarginationis posito ; tibiis posticis apice mucronatis, ante apicem bidentatis, dente externo valido; abdominis segmento basali vix deplanato, remote punctato, vage flavo-tomentoso.

Long. 10 lin.

Hab. Borneo ; collected by the late Madame Pfeiffer.

Robust, ovate, resembling *S. quadraticollis* in form, but rather shorter and thicker than that insect, bright metallic green, with metallic blue reflexions, subnitidous, outer half of antennæ black, opake. Head finely punctured; antennæ robust, two-thirds the length of the body, six basal joints shining metallic green. Thorax subquadrate, almost transverse across the anterior angles, the latter moderately prominent, anterior margin very slightly produced; upper surface subopake, impressed near the basal margin with a shallow fovea; sparingly covered near the base by a few very minute punctures, only visible under a lens. Scutellum semiovate, its base deeply excavated. Elytra shorter, ovate, truncate at the base, their apex subacutely rounded; above very convex, moderately impressed within the shoulders, the latter somewhat prominent; basilar space indistinctly elevated, bounded beneath by a nearly obsolete transverse depression; surface covered with fine irregularly confluent grooved lines, more crowded towards the apex, where their interstices are raised, and form irregular crenulations; on each elytron are six or seven double rows of punctures, visible only here and there, principally on the anterior half of the surface, being entirely obliterated for the remainder of their course; on the outer disc, just before its middle, is a small smooth spot, shining blue-green.

Male.—Posterior thighs strongly incrassate, extending beyond the elytra for nearly half their length, their outer surface very convex, the thickest portion of the thigh being across its middle; lower edge deeply notched at the apex and armed with two stout teeth, the anterior larger and situated immediately in front, the other placed just at the posterior angle of the notch, the inner edge of which is clothed with fulvous hairs; hinder tibiæ curved at the base, thence nearly straight to the apex, the middle portion slightly flexuose; apex strongly mucronate, armed on either side with a stout tooth, the outer one large and slightly curved, the inner one very short; inner edge notched at the base, deeply grooved and sparingly clothed with pale pubescence; basal segment of abdomen flattened, remotely punctured, very sparingly dotted with a few fulvous hairs.

This fine insect bears a very much stronger resemblance to *S. superba* and *quadraticollis* than to *S. Druryi* and its allies, with which insects, from the possession of a second tooth at the apex of the lower edge of its hinder femora, it must be placed; the position however of this tooth is very different—instead of being situated in the notch itself, as in the above-named species, it is placed at its posterior angle.

9. *Sagra Petelii*, Lac.

Mon. Phyt. i. p. 44.

" Brevior, aurata [aut viridis aut cærulea], subtus cum pedibus virescenti-cærulea; antennis dimidio corporis longioribus; prothorace subquadrato, margine antico sat producto, sinuato, angulis anticis prominulis, supra evidenter at minus crebre punctulato; processu mesosternali truncato, antrorsum producto; elytris basi argute marginatis, humeris elevatis, punctato-striatis, striis fere integris, interstitiis punctulatis.

Mas.—Femoribus posticis elytra valde superantibus, validissimis, apice dilatatis, compressis, argute carinatis, subtus apice lamina magna bidentata, intus tomentosa, denteque parvo munitis; tibiis ejusdem paris flexuosis, apice uncinatis denteque externo longiori pone medium armatis.

Fœm.—Minor, femoribus posticis modice incrassatis, elytris vix longioribus, subtus apice crista brevi crenulata præditis; tibiis ejusdem paris arcuatis, apice vix mucronatis."

Long. $5\frac{1}{2}$—6 lin. (Lacordaire.)

Var. A (*mas*). Minor; tibiis posticis simplicibus.

Sagra pygmea, Lac. Mon. Phyt. i. p. 53.

Hab. Java, Penang; also Siam and China.

Fam. DONACIDÆ, Lac.

Genus Donacia, Fabr.

Lac. Mon. Phyt. i. p. 92.

1. *Donacia æraria*, n. sp.

Donacia Javana? Wied. in Germ. Mag. der Entom. iv. p. 173.

Modice elongata, cupreo aut viridi-ænea; capite rufescente, elytris viridi- aut fusco-æneis, pedibus antennisque obscure rufis, nigro-variegatis, subtus argenteo-sericea; thorace longitudine paullo latiori, angulis anticis acutis, non prominulis, posticis modice prominulis; dorso subtilissime transversim strigoso, medio longitudinaliter sulcato; elytris apice recte truncatis, dorso modice deplanatis, infra basin transversim depressis, punctato-striatis, interstitiis subelevatis, lævibus; femoribus posticis bidentatis, dente postico minuto, in ♀ fere obsoleto.

Long. 3—$3\frac{1}{2}$ lin.

Hab. Tringanee, Java? also Ceylon and India.

Head very finely rugose-punctate, face impressed with a longitudinal groove which runs backwards nearly to the neck;

antennæ half the length of the body, obscure rufous, basal joints obscure æneous, the remaining joints more or less stained at their apex with black; second and third joints nearly equal, each one half shorter than the fourth. Thorax rather broader than long, sides nearly straight and parallel, slightly constricted at the base, anterior angles distinct, rectangular, not produced, the angle itself indicated by an obtuse tubercle, from the centre of which springs a long single hair; hinder angles slightly produced, obtuse, curved slightly upwards; upper surface transversely excavated at the base, medial line impressed by a distinct longitudinal groove, which is broader and deeper towards its base; whole surface of disc covered with very fine transverse rugæ. Scutellum triangular, acute, covered wtth fine adpressed pubescence. Elytra much broader at their base than the thorax, sides straight and parallel along their anterior half, thence obliquely narrowed to the apex, the latter truncate; upper surface flattened along the suture, lightly depressed transversely below the basilar space, deeply punctate-striate, interspaces thickened and slightly raised, nitidous, obsoletely transverse strigose.

This species must be placed close to *D. Delesserti*, to which it is very closely allied, if not indeed a variety of that insect; it differs in having the anterior angle of the thorax indicated by a small but distinct tubercle, and in the longitudinal groove on the disc extending nearly from base to apex. I possess specimens from Ceylon; from the continent of India, collected by Mr. Brettingham; and from Tringanee, sent to this country by Count de Castelnau.

Fam. CRIOCERIDÆ, Lacordaire.

Genus Lema, Fabr.

Lac. Mon. Phyt. i. p. 303.

1. *Lema Goryi*, Guérin.

Lac. Mon. Phyt. i. p. 313.

"Elongata, flavo-rufa; antennis (articulo primo prætermisso) tibiis tarsisque anticis, pedibus quatuor posticis omnino, metathorace abdomineque nigris; prothorace elongato, in medio valde coarctato, supra sublævi, basi haud impresso; elytris convexis, punctato-striatis, interstitiis planis, sublævibus, apice summo elevatis." (Lacordaire.)

Long. $5\frac{1}{2}$ lin.

Hab. Amboina.

2. *Lema pectoralis*, n. sp. (Pl. I. fig. 3.)

Subelongata, subcylindrica, pallide flavo-fulva, nitida; pectore, femoribus posticis quatuor basi, tibiis posticis quatuor (intermediis dorso flavo-vittatis) unguiculisque nigris, tibiis anticis tarsisque omnibus infuscatis; antennis gracilibus, filiformibus; thorace cylindrico, lateribus modice constricto, dorso minute punctato, ante basin unifoveolato et utrinque oblique transversim sulcato; elytris thorace multo latioribus, convexis, infra basin vix transversim impressis, tenuiter punctato-striatis, striis ad apicem distinctis, interspatiis planis, apice obsolete convexiusculis.

Long. 4 lin.

Hab. Singapore.

Head deeply constricted behind the eyes, the latter prominent, deeply notched; face triangular; antennæ filiform, nearly three-fourths the length of the body. Thorax scarcely broader than long; its sides moderately constricted; above smooth, a longitudinal space down the middle impressed with a number of very fine punctures; just in front of the base is a single distinct fovea; on either side, running obliquely inwards and backwards from the lateral constriction, is a short transverse groove. Scutellum glabrous, elongate-trigonate, its apex truncate. Elytra much broader than the thorax, oblong, indistinctly impressed transversely below the basilar space, finely but distinctly punctate-striate. Abdomen clothed with coarse adpressed whitish hairs. Thighs moderately thickened, the hinder pair rather thicker than the others, extending to the apex of the third abdominal segment.

This insect, which has at first sight very much the aspect of the pale variety of *Criocceris impressa*, must be placed close to *L. Goryi*.

3. *Lema palpalis*, Lac.

Mon. Phyt. i. p. 315.

"Oblongo-parallela, læte flava; palporum maxillarium articulo quarto globoso; prothorace elongatulo, in medio valde lateque coarctato, supra longe ante basin parum profunde transversim sulcato; elytris convexis, tenuiter punctato-striatis, interstitiis lævibus." (Lacordaire.)

Long. 4 lin.

Hab. Java; also Siam.

4. *Lema femorata*, Guérin.

Lac. Mon. Phyt. i. p. 316.

"Elongata, saturate rufo-flava, nitida, subtus nigro-maculata; antennarum articulis 8—9 maculaque laterali baseos thoracis utrinque nigris; prothorace elongatulo, subcylindrico, in medio parum coarctato, antice utrinque distincte tuberculato, supra lævi punctoque longe ante basin impresso; elytris remote punctato-striatis, interstitiis lævibus, postice subporcatis, maculis duabus communibus (altera pone medium, altera apicali) singuloque fasciis duabus abbreviatis (una ante, altera infra medium) nigris.

Long. 4—4$\frac{3}{4}$ lin.

Mas.—Femoribus posticis sat incrassatis, elytris nonnihil longioribus.

Fœm.—Femoribus posticis vix incrassatis, elytris brevioribus."

Hab. Java. (Lacordaire.)

5. *Lema quadripunctata*, Oliv.

Lac. Mon. Phyt. i. p. 318.

"Elongata, saturate rufo-flava, subtus nigro-maculata; prothorace minus elongato, subcylindrico, in medio parum coarctato, antice utrinque obsolete tuberculato, supra lævi punctoque longe ante basin impresso; elytris remote punctato-striatis, interstitiis lævibus, postice subporcatis, singulo fasciis duabus transversis abbreviatis (una ante, altera infra medium) nigris; antennarum articulis 8—9 concoloribus; femoribus posticis in utroque sexu abdomine brevioribus.

Long. 4—4$\frac{3}{4}$ lin.

Mas.—Femoribus posticis modice incrassatis.

Fœm.—Femoribus posticis vix incrassatis." (Lacordaire.)

Hab. Java, New Guinea (sec. Dupont); also Ceylon.

6. *Lema hæmatomelas*, Lac.

Mon. Phyt. i. p. 334.

"Oblongo-parallela, subtus cum pedibus antennisque nigra, supra flavo-sanguinea, nitida; prothorace pone medium modice coarctato, supra ante basin sat profunde transversim impresso; elytris subdepressis, basi nonnihil elevatis, punctato-striatis, interstitiis apice subcostatis.

Long. 2$\frac{1}{3}$—2$\frac{2}{3}$ lin.

Var. A. Antennarum articulo primo femoribusque anticis subtus apiceque rufescentibus." (Lacordaire.)

Hab. Java, Sumatra.

7. *Lema mutabilis*, n. sp.

Subelongata, parallela, subcylindrica, pallide fulva, nitida; antennis gracilibus, filiformibus, nigris, basi et apice fulvis; thorace subquadrato, medio valde coarctato, disco pone medium profunde transversim sulcato, tenuiter punctato; elytris infra basin transversim depressis, fortiter punctato-striatis, interspatiis planis, ad apicem costatis.

Mas.—Elytris nigro-cæruleis, basi fulvis.

Fœm.—Elytris nigro-cæruleis, basi et apice fulvis.

Var. A (*mas*). Elytris ut in typo, antennis fusco-fulvis.

Var. B (*mas*). Elytris fulvis, punctis piceis.

Var. C. Elytris totis nigro-cæruleis.

Long. 3—3¼ lin.

Hab. Makassar.

Face triangular, epistome clothed with a few pale fulvous hairs; front impressed with a short longitudinal groove; antennæ slender, filiform, longer than half the body, clothed with coarse adpressed fulvous hairs. Thorax cylindrical, the lateral constriction angular and occupying the whole length of the side from base to apex; anterior margin truncate. Scutellum trigonate, its apex truncate, indistinctly notched. Elytra narrowly oblong, parallel, surface of each covered with ten rows of deep distinct punctures; basilar space bounded beneath by a narrow but deeply impressed transverse groove; humeral callus bounded within by a longitudinal impression which runs along one of the rows of punctures. Body beneath sparingly clothed with fine silky hairs; hinder thighs not thickened, scarcely extending in either sex beyond the second segment of the abdomen; abdomen finely punctured.

8. *Lema lacertosa*, Lac.

Mon. Phyt. i. p. 339.

"Sat elongata, parallela, supra rufo-sanguinea, subopaca, abdomine nigro-rufoque variegato, pedibus anticis testaceis, cæteris pectoreque nigris; prothorace medio sat profunde coarctato, supra ante basin sat profunde transversim sulcato;

elytris planis, mediocriter punctato-striatis, interstitiis subtilissime alutaceis, postice elevatis." (Lacordaire.)

Long. $2\frac{2}{3}$ lin.

Hab. Singapore; also Bengal, China.

My specimens of this insect differ somewhat from the one from Bengal (which I have not seen) described in Lacordaire's work; mine have the abdomen almost, in one case, entirely black—in one specimen, also, the anterior legs are piceous; in all, the anterior half of the elytra is distinctly rugulose, and the basilar space is bounded beneath by a transverse depression; this latter character is not mentioned by Lacordaire; I do not think these differences are sufficient to constitute a distinct species; like many insects with a wide geographical range it is probably variable both in sculpture and coloration.

9. *Lema Papuana*, Lac.

Mon. Phyt. i. p. 341.

"Breviter oblongo-parallela, luteo-testacea; abdomine femoribusque posticis nitore violaceo indutis [aut læte violaceis], prothorace posterius profunde constricto; elytris convexis, basi valde conjunctim elevatis [infra basin profunde transversim sulcatis], subtiliter punctato-striatis, ab apice ultra medium saturate ac nitidissime violaceis.

Var. A. Læte rufa." (Lacordaire.)

Var. B. Elytris totis violaceis.

Mas.—Femoribus posticis valde incrassatis, subtus ante apicem spinâ validâ conicâ armatis; tibiis posticis infra basin ad apicem distincte incrassatis.

Fœm.—Femoribus posticis modice incrassatis, inermibus.

Long. $2\frac{3}{4}$ lin.

Hab. Dory, New Guinea; Wagiou.

All the specimens I have seen have their abdomen and hinder thighs much more deeply stained with violaceous than would appear to be the case in the specimens described by Lacordaire.

10. *Lema Boisduvalii*, n. sp.

Subelongata, parallela, luteo-testacea; abdomine et femoribus posticis (his basi exceptis) nigro-violaceis; thorace posterius profunde constricto; elytris ab apice ultra medium nitidissime violaceo-cyaneis, basi valde elevatis, infra basin profunde transversim sulcatis, subtilissime punctato-striatis, punctis apicem

versus fere deletis, interspatiis planis, ad apicem obsolete convexiusculis; antennis extrorsum, tibiis apice, tarsisque infuscatis.

Mas.—Femoribus posticis sat valde incrassatis, subtus ante apicem spinâ elongatâ armatis; tibiis paris ejusdem infra basin ad apicem evidenter incrassatis.

Fœm.—Femoribus posticis paullo incrassatis, muticis.

Long. 3 lin.

Hab. Mysol, Ceràm.

11. *Lema connectens*, n. sp.

Subelongata, parallela, luteo-testacea; oculis mandibularumque apice nigris, antennarum articulis 5—11 supra nigro-maculatis; femoribus posticis addomineque obscure violaceis, tarsis posticis quatuor, tibiis posticis totis, tibiisque intermediis apice, piceis; thorace posterius profunde constricto; elytris ab apice vix ultra medium cæruleo-nigris, basi elevatis, infra basin profunde transversim sulcatis, ante medium magis distincte, postice subtilissime punctato-striatis, interstitiis planis, ad apicem obsolete convexiusculis.

Mas.—Femoribus posticis sat valde incrassatis, subtus ante apicem breviter sed valde mucronatis; tibiis ejusdem paris infra basin ad apicem vix incrassatis.

Fœm.—Femoribus posticis modice incrassatis, muticis.

Long. 3 lin.

Hab. Aru Islands, New Guinea.

This and the two preceding species agree so completely in general colour, form, and sculpture, that it will be only necessary to give the points of difference:—

In *P. Papuana* the antennæ are entirely rufo-testaceous; the colour of the darker portion of the elytra, which is violaceous, varies greatly in extent, sometimes covering only the hinder two-thirds of the elytra, in other specimens extending over the whole surface, leaving only a narrow space at the basal margin; the hinder thigh in the ♂ of the same species has a strong conical spine.

In *L. Boisduvalii* the outer half of the antennæ is black; the colour on the elytra is bright cyaneous instead of violaceous, and less variable in extent, occupying usually rather more than two-thirds of their surface; and the femoral spine of the ♂, though equally long, is less robust and slightly curved at its apex.

The ♂ of *L. connectens* may be known from either of the other two species by the much shorter spine on the hinder femora;

both sexes may be readily distinguished by the nigro-cæruleous tint of the darker portion of the elytra (which varies very little in extent), by the pale upper lip, and by the black markings on the upper surface of the joints of the antennæ; these markings vary very greatly, in some specimens being confined to mere patches near the apex of each joint, in others covering the whole of the upper surface, leaving only a pale line beneath.

12. *Lema atriceps*, n. sp.

Subelongata, parallela, fulvo-testacea; capite (collo prætermisso), abdomine, pedibus posticis (femoribus basi exceptis), tarsis, tibiisque quatuor anticis (his basi plus minusve exceptis) nigris; antennarum articulo ultimo albo; thorace posterius profunde constricto; elytris ab apice vix ultra medium obscure nigro-cæruleis, basi elevatis, infra basin profunde transversim sulcatis, subtilissime punctato-striatis, interspatiis ad apicem obsolete convexiusculis.

Mas.—Femoribus posticis minus valde incrassatis, muticis; tibiis ejusdem paris infra basin ad apicem vix incrassatis.

Fœm.—Femoribus posticis modice incrassatis, muticis.

Long. $2\frac{1}{2}$—3 lin.

Hab. Mysol.

The black head and white apical joints of the antennæ, together with the unarmed hinder femora in the ♂, will separate this from the foregoing species, the larger size and pale thorax from *L. Hebe*.

13. *Lema Hebe*, Baly.

Trans. Ent. Soc. N. S. vol. v. p. 150.

Subelongata, parallela, convexa, piceo-nigra, nitida; antennarum apice, scutello, elytrorum basi, meso- et meta-thorace, tibiarum apice femoribusque fulvis; thorace posterius profunde constricto; elytris basi elevatis, infra basin profunde transversim sulcatis, subtilissime punctatis.

Mas.—Femoribus posticis sat incrassatis, muticis.

Long. $2\frac{1}{2}$ lin.

Hab. Dory, New Guinea.

Subelongate, convex, shining pitchy black; the extreme apex of antennæ, scutellum, base of the elytra, meso- and meta-thorax, thighs, together with the base of the tibiæ, fulvous. Antennæ filiform, equal in length to the body, their two terminal joints

fulvous. Thorax rather broader than long, subcylindrical, strangulated behind the middle; surface smooth and shining, obsoletely punctured. Scutellum shining fulvous. Elytra oblong, convex, deeply impressed transversely below their base; each elytron with ten rows of fine punctures, which become obsolete towards the apex, puncturing on the transverse depression coarse and deeply impressed; shining black, the basal third bright fulvous. Beneath nigro-piceous, meso- and meta-thorax, thighs and base of tibiæ fulvous.

14. *Lema militaris*, Baly. (Pl. I. fig. 4.)

Trans. Ent. Soc. 3rd Ser. vol. i. p. 612.

Subelongata, parallela, subcylindrica, nigra, nitida; thorace, pectore, profemorum basi et apice, mesofemorum apice, metafemorum plagâ infra, elytrorumque basi et fasciâ vix pone medium fulvis; thorace posterius profunde constricto; elytris tenuiter punctatis, infra basin non transversim sulcatis.

Mas.—Femoribus posticis valde incrassatis, subtus spinâ validâ armatis.

Fœm.—Femoribus posticis minus incrassatis, muticis.

Long. 4 lin.

Hab. New Guinea.

Head constricted behind the eyes; face triangular, epistome triangular, front smooth and shining, finely punctured, impressed behind with a short longitudinal fossa; antennæ filiform, three-fourths the length of the body, fifth joint shorter than the two preceding united; eyes notched. Thorax very similar in form to that of *L. Papuana*, deeply strangulate just behind the middle, surface smooth, remotely impressed with very fine punctures. Elytra much broader than the thorax, nearly four times its length; sides parallel, their apex regularly rounded, above convex, impressed within the humeral callus, each elytron with ten rows of distinct punctures, visible to the apex, the row nearest the suture sulcate in front, interspaces smooth, slightly raised near the apex of the elytron. Body beneath smooth and shining, abdomen nearly glabrous. Hinder thighs in the male equal to the abdomen in length; in the female not extending beyond the first three segments, much less thickened, and unarmed.

The absence of the transverse depression on the elytra, the larger size and different coloration, will at first sight separate this species from *L. Papuana* and its near neighbours.

The six species from *L. Papuana* to *L. militaris* inclusive form

a group belonging exclusively to the Malayan fauna. Until the expedition of Mr. Wallace, *L. Papuana* was the only one known to us.

15. *Lema variolosa*, Baly.

Trans. Ent. Soc. N. S. vol. v. p. 146.

Oblongo-elongata, rufo-fulva, nitida; thorace subquadrato, posterius valde coarctato, disco lævi, ante basin transversim sulcato; antennis, thoracis vittâ centrali postice abbreviatâ, scutello, elytrisque nigris; his valde et irregulariter punctatis, punctis (præsertim ad latera) confluentibus, interstitiis valde elevatis; genubus, tibiis tarsisque piceis.

Long. 3 lin.

Hab. Sarawak, Borneo.

Oblong-elongate, convex above, shining rufo-fulvous; antennæ, a vitta on the thorax, the scutellum and the elytra black; knees, tibiæ and tarsi piceous. Head constricted behind the eyes; front with an oblique groove on either side; face transversely grooved just above the insertion of the antennæ; the latter slender, filiform, nearly equal in length to the body, their third joint obovate, nearly twice the length of the second. Thorax subquadrate; sides deeply constricted just behind their middle; above subcylindrical, deeply impressed in front of the base by a transverse groove, either end of which terminates in the lateral constriction; surface smooth and shining, impunctate, bright rufo-fulvous, a broad vitta down the centre, which gradually increases in width behind, and is abbreviated at the transverse groove, black. Scutellum shining black, its apex truncate. Elytra much broader than the thorax, oblong, convex, indistinctly depressed transversely below the base; shining black, whole surface irregularly covered with large deep variolose punctures, more crowded and confluent towards the sides; interspaces smooth and shining, much thickened and elevated, and forming towards the sides irregular reticulations. Beneath shining rufo-fulvous, abdomen covered with very short adpressed fulvous pubescence; apex of the jaws, the knees, tibiæ (their inner surface excepted) and tarsi pitchy black.

16. *Lema monstrosa*, n. sp. (Pl. I. fig. 5.)

Subelongata, subcylindrica, rufo-testacea, nitida; antennis filiformibus (articulo basali subtus excepto) elytrisque nigris; his profunde punctatis, singulatim tuberculis septem conicis magnis valde elevatis instructis, interspatiis tuberculato-

elevatis; thorace transverso, medio valde coarctato, supra gibboso, utrinque longitudinaliter sulcato, paullo pone medium profunde transversim sulcato; femorum apicibus, tibiis tarsisque piceis.

Long. 3 lin.

Hab. Sarawak, Borneo.

Head deeply constricted behind the eyes, the latter very prominent, angularly notched; face triangular, forehead depressed, impressed in the middle with a single fovea; antennæ slender, nearly equal to the body in length. Thorax distinctly broader than long, sides very deeply constricted about their middle, upper surface smooth, finely but subremotely punctured, deeply impressed a short distance behind the lateral constriction by a broad transverse sulcation, which extends at either side into the constriction itself; disc gibbous, bounded on either side by a deeply impressed and slightly sinuate longitudinal groove, which, commencing at the base of the thorax, intersects the transverse sulcation, and runs almost directly upwards and slightly outwards nearly to the apical margin; the surface of gibbosity finely but subremotely punctured, impressed longitudinally with a fine grooved line; the space bounded by the transverse groove in front, posteriorly by the base of the thorax, and laterally by the longitudinal sulci, is flattened and depressed. Scutellum trigonate, its apex broadly truncate, extreme apex black. Elytra much broader than the thorax, parallel, somewhat flattened along the back, closely covered with elevated tubercles, the spaces between which are deeply impressed with large round punctures; each elytron in addition is furnished with seven much larger tubercles, greatly resembling those on the surface of a *Chlamys:* they are placed as follows—the first on the basal margin transverse, less curved than the others and obtuse; the second just within the lower end of the humeral callus; the third immediately below the basilar space, at some little distance from the suture; the fourth just below the middle, halfway between the suture and outer margin; the fifth and sixth placed obliquely nearly midway between the middle and apex, and the seventh subapical, a little distance from the lateral border; the last six are all conical and strongly raised.

17. *Lema ferox*, n. sp.

Subelongata, parallela, pallide rufo-testacea, nitida; antennis filiformibus, scutello (basi exceptâ) elytrisque nigris, his

crebre elevato-tuberculatis, utrisque tuberculis sex magnis sat elevatis instructis ; thorace vix transverso, lateribus valde coarctato, dorso vix gibboso, ante basin transversim sulcato, basi utrinque oblique impressa ; tibiis tarsisque piceis.

Long. $2\frac{1}{2}$ lin.

Hab. Sarawak, Borneo.

Closely resembling the last species, much smaller, the larger tubercles on the surface of the elytra being as broad, or even broader, at their base, but much less strongly elevated ; the second and third are also rather differently placed on the surface, the first of them being halfway between the humeral callus and the suture, and the other close to the suture itself; the fifth and sixth have their apices rounded and not conical ; the seventh large tubercle is absent. The elytra are closely covered with small tuberosities, to the almost entire exclusion of the puncturing ; those near the hinder half of the lateral margin are larger and more distinct than those elsewhere and form a row of rounded protuberances. Head very similar to that of *L. monstrosa*, the antennæ somewhat shorter. Thorax finely but subremotely punctured ; centre of disc convex, slightly gibbous, longitudinal sulci obsolete in front of the transverse groove, being visible only at the base in the form of two oblique impressions.

18. *Lema constricta*, n. sp.

Elongata, parallela, subcylindrica, rufo-testacea, nitida ; antennis (basi exceptâ) nigro-piceis ; thorace cylindrico, lateribus valde et late constricto, supra pone medium fortiter transversim sulcato, tenuiter sed sparse punctato ; elytris violaceis, infra basin late transversim depressis, fortiter punctato-striatis, striis distinctis, punctis ante medium magnis, profunde impressis, postice minoribus, interspatiis transversim rugulosis, pone medium subcostatis ; abdominis segmentorum basi et metasterni utrinque plaga pallide piceis.

Var. A. Antennis totis pallidis.

Long. $2\frac{2}{3}$ lin.

Hab. Sumatra. Var. A, Penang.

Head deeply constricted behind the eyes ; face trigonate, forehead smooth, impressed with a small fovea ; antennæ nearly equal in length to the body, slender, filiform, not thickened towards the apex, the second and third joints nearly equal, the fourth and fifth increasing in length, the others each equal to the fifth ; labrum and apex of jaws black, eyes slightly notched. Thorax subquadrate, sides produced in front behind their apex into an indistinct tu-

bercle, apical margin truncate; the deep lateral constriction, conjoined with the dorsal groove, causes the thorax to appear strangulate behind its middle, resembling much in shape the thorax of *L. Papuana*. Scutellum subquadrate, its apex truncate. Elytra much broader than the thorax, nearly three times its length, parallel, transverse impression below the basilar space broad and deep but ill defined; interspaces between the rows of punctures, when viewed under a lens, finely but not closely punctured. Hinder thighs slightly thicker than the others, extending nearly to the apex of the fourth abdominal segment; unguiculi of all the legs black.

19. *Lema togata*, Lac.

Mon. Phyt. i. p. 343.

"Oblongo-parallela, saturate cyanea; capite antice, antennis, tibiis tarsisque nigris; pectore, femorum elytrorumque basi coccineis; prothorace elongatulo, posterius modice coarctato, angulis anticis subprominulis, supra basi transversim profunde sulcato foveolaque media impresso; elytris planiusculis, basi nonnihil elevatis, remote ac irregulariter punctato-striatis."

Long. 2 lin. (Lacordaire.)

Hab. Celebes (Coll. Deyrolle); also New Holland.

20. *Lema unicincta*, Guérin.

Lac. Mon. Phyt. i. p. 343.

"Modice elongata, parallela, læte ferruginea, prothorace pone medium profunde coarctato, supra basi transversim sulcato, disco convexo; elytris planiusculis, tenue punctato-striatis, nigro-nitidis, fasciâ medio communi latâ, læte ferrugineâ."

Long. 3 lin. (Lacordaire.)

A. Antennis totis ferrugineis.

B. Antennis basi exceptâ nigris.

Hab. Dory, New Guinea.

21. *Lema torulosa*, Lac.

Mon. Phyt. i. p. 345.

"Sat elongata, rufo-sanguinea, tibiarum apice tarsisque fuscis, prothorace medio sat profunde coarctato, supra basi anticeque transversim impresso; elytris punctato-striatis, vittâ latâ laterali apiceque chalybeis." (Lacordaire.)

Long. $2\frac{2}{3}$ lin.

Hab. Philippine Islands.

22. Lema rufina, Swartz.

Lac. Mon. Phyt. i. p. 346.

"Sat elongata, læte rufa, prothorace infra medium modice coarctato, supra basi sat profunde transversim impresso; elytris punctato-striatis, viridi-cæruleis, apice summo singuloque fasciâ latâ longitudinali, testaceo-flavescentibus."

Long. 2 lin. (Lacordaire.)

Hab. Java.

23. Lema Bowringii, Baly.

Ann. and Mag. of Nat. Hist. July, 1862, p. 18.

Elongata, subcylindrica, nitida, subtus nigro-cyanea, argenteo-pubescens; capite thoraceque rufo-testaceis, illo pone oculos valde constricto, oculis antennisque subfusiformibus nigris, harum articulis ultimis duobus sordide albis; hoc cylindrico lateribus vix pone medium valde coarctato, ante basin transversim sulcato, sub lente remote punctato; scutello nigro; elytris læte cæruleis, parallelis, basi obsolete elevatis, punctato-striatis, interspatiis antice planis, disco exteriori indistincte transversim corrugatis, ad apicem subcostatis.

Var. A. Capite thoraceque læte cæruleis, vertice obscure rufo.

Long. $2\frac{3}{4}$—3 lin.

Hab. Pulo-Penang. Collected by Messrs. J. C. Bowring and Lamb.

Elongate, subcylindrical, nitidous, bluish-black beneath and sparingly clothed with adpressed silvery pubescence; head and thorax rufo-testaceous; elytra deep metallic blue. Head constricted behind the eyes; face triangular, epistome separated from the face by a deep, acutely-angled groove; from its apex two others run obliquely upwards, one on either side, along the edge of the orbit; inner portion of the latter stained with black; labrum piceous; general surface of head minutely and distantly punctured, front impressed with a single distinct fovea; antennæ subfusiform, moderately robust, black, their two terminal joints dusky white, basal joint incrassate, ovate; second short, submoniliform; third and fourth each longer than the first, equal, obconic; four basal joints nitidous, the rest opaque. Thorax subcylindrical, slightly longer than broad; sides broadly and deeply constricted immediately behind their middle, narrowed at the extreme apex; upper surface impressed in front of the base with a deep sulcation, which is extended at either end into the lateral constriction; on the centre of the disc are five or six lon-

gitudinal rows of fine subremote punctures, visible only with a lens. Scutellum semiovate, obtuse. Elytra much broader than the thorax, parallel, their basilar portion indistinctly elevated; each elytron impressed with ten rows of deep distinct punctures, the outer row sulcate; interspaces plane in front, subcostate towards the apex, each impressed with a row of fine punctures; external half of outer disc obsoletely wrinkled transversely; hinder thighs ampullate, much shorter than the abdomen, moderately incrassate.

Var. A. In this variety the head and thorax (with the exception of an obscure patch on the vertex of the former) are concolorous with the elytra.

24. *Lema cæruleata*, n. sp.

Elongata, parallela, cærulea, nitida; antennis modice robustis, subfusiformibus, basi exceptâ nigris; thorace elongatulo, medio valde coarctato, dorso lævi, disci medio subtilissime punctato, ante basin transversim sulcato; elytris infra basin transversim depressis, distincte punctato-striatis, striis ad apicem distinctis, interstitiis planis, ad apicem paullo convexiusculis.

Long. 3 lin.

Hab. Tonda.

Neck deeply constricted behind the eyes; face triangular; forehead impressed with a longitudinal groove; eyes deeply notched; antennæ nearly two-thirds the length of the body, moderately robust, slender at the base, slightly tapering at their apex, third and fourth joints equal, each rather shorter than the fifth. Scutellum subtrigonate, its apex impressed with a deep fovea. Elytra nearly four times the length of the thorax, sides parallel; subcylindrical, broadly depressed below the basilar space, the latter obsoletely elevated. Abdomen clothed with very short adpressed sericeous hairs; hinder thighs scarcely thicker than the others, extending slightly beyond the second abdominal segment.

Very near in form and colour to the blue variety of *L. Bowringii*, rather larger than that insect, the apex of the antennæ black, the transverse sulcation on the thorax less deeply impressed.

25. *Lema abdominalis*, Oliv.

Lac. Mon. Phyt. i. p. 350.

" Modice elongata, parallela, læte cyanea, abdomine sanguineo; prothorace elongato, in medio valde lateque coarctato, supra

lævissimo basique minus profunde transversim impresso; elytris convexiusculis, mediocriter punctato-striatis, interstitiis apice convexis." (Lacordaire.)

Long. 3 lin.

Hab. Java.

26. *Lema striatopunctata*, Lac.

Mon. Phyt. i. p. 368.

"Sat elongata, læte rufo-ferruginea; antennis pallidioribus, genubus, tibiis tarsisque nigris; prothorace elongato, subcylindrico, in medio sat profunde coarctato, supra lævi punctoque medio basi impresso; elytris nigro-cyaneis vel virescentibus, apice summo rufis, sat convexis, infra basin late transversim depressis, tenue punctato-striatis, interstitiis planis." (Lacordaire.)

Long. $3\frac{2}{3}$—4 lin.

Hab. Java.

27. *Lema cyanoptera*, Lac.

Mon. Phyt. i. p. 369.

"Sat elongata, læte rufo-ferruginea; tibiarum apice tarsisque nigris; prothorace elongato, subcylindrico, in medio profunde lateque coarctato, supra ante basin obsolete transversim sulcato, disco convexo, lævi; elytris læte cyaneis, sat convexis, infra basin late transversim depressis, tenue punctato-striatis, interstitiis planis." (Lacordaire.)

Long. $3\frac{2}{3}$ lin.

Hab. Manilla.

28. *Lema cyanipennis*, Fabr.

Syst. El. i. p. 472.

Lema cherubim, Lac. Mon. Phyt. i. p. 370.

Sat elongata, parallela, subcylindrica, rufo-ferruginea, nitida; antennis pallidis, corporis dimidio longioribus; thorace elongato, pone medium sat profunde coarctato, supra lævi, basi utrimque leviter transversim sulcato, medio obsolete unifoveolato; elytris læte metallico-cæruleis, convexis, infra basin leviter transversim impressis, basi elevatis, transversim rugulosis; punctato-striatis, striis apicem versus minus fortiter impressis, interspatiis planis, ad apicem convexis.

Long. $3\frac{3}{4}$—$4\frac{1}{2}$ lin.

Hab. Sumatra, Java, Borneo, Penang, Tringanee.

Head trigonate, forehead impressed with a faint longitudinal fovea; eyes deeply notched; antennæ filiform, moderately robust,

two-thirds the length of the body, third and fourth joints equal, each nearly twice the length of the second. Thorax distinctly longer than broad; upper surface smooth, nitidous, a longitudinal space on the middle disc impressed with minute punctures. Scutellum triangular, its apex truncate, piceous. Elytra much broader than the thorax, parallel, cylindrical, punctate-striate, punctures strongly impressed at the base, fine towards the apex of the elytron, interspaces plane in front, convex towards their apex. Body beneath nearly glabrous. Unguiculi black. Mesosternum elongate, its apex obtuse, more or less deeply emarginate.

This species is in my opinion undoubtedly the *L. cyanipennis* of Fabricius, the insect described by M. Lacordaire under that name being a closely allied but quite distinct species. Fabricius gives Sumatra as the locality of his *L. cyanipennis,* whilst M. Lacordaire's insect (for which I would propose the name of *L. Lacordairii*) is a native of Continental India. The true *cyanipennis*, though brought to this country in some abundance by Mr. Wallace, was up to that time exceedingly rare in collections, the only specimen previously known to me being one in my own cabinet collected in Sumatra by Sir Stamford Raffles. The two species, although agreeing very closely in form, sculpture and coloration, may be readily known from each other by the relative proportion of their antennæ; in *L. cyanipennis* these organs are at least two-thirds the length of the body; in *L. Lacordairii* they do not exceed one-half its length. I possess a series of individuals of both species, and I do not find the least tendency to approximation between the two; all the specimens from India, Siam and Birmah agreeing in having short antennæ (as described by Lacordaire); all those from Sumatra and other parts of the Malay Archipelago, on the other hand, having them elongate. The synonymy ought to stand thus:—

Lema cyanipennis, Fabr. Syst. El. i. 472 . Malay Archipelago.
cherubim, Lac. Mon. Phyt. i. 370.
Lema Lacordairii . . . . . Indian Continent.
cyanipennis, Lac. Mon. Phyt. i. 370.

29. *Lema cyanesthis*, Boisd.
Lac. Mon. Phyt. i. p. 375.

"Modice elongata, parallela, rufo-ferruginea; pedibus posticis infuscatis, pectore abdomineque nigris; prothorace elongato, pone medium valde coarctato, supra ante basin evidenter transversim sulcato, disco convexo, lævi; elytris cyaneo-

virescentibus, sat convexis, basi conjunctim elevatis, subtiliter punctato-striatis, interstitiis planis." (Lacordaire.)

Long. $3\frac{1}{2}$ lin.

Var. A. Metathorace pedibusque posticis corpore concoloribus, abdomine nigro-piceo.

Var. B. Corpore subtus rufo.

Hab. Dory, New Guinea; var. A, Aru Islands; var. B, New Guinea, Sumatra.

30. *Lema Coromandeliana*, Fabr.

Lac. Mon. Phyt. i. p. 377.

"Sat elongata, rufa; antennis nigris, capitis dimidia parte antica, pectoris lateribus [plerumque] pedibusque nigro-virescentibus; thorace pone medium modice coarctato, supra lævi transversimque bisulcato, sulco anteriore in medio interrupto; elytris saturate cæruleo-viridibus, subdepressis, basi haud elevatis, punctato-striatis, interstitiis lævibus, planis, apice elevatis." (Lacordaire.)

Long. $2\frac{1}{2}$ lin.

Mas.—Tibiis intermediis infra pone medium dente brevi armatis.

Crioceris cyanipennis, Oliv. Entom. vi. p. 740, 21, pl. 2, f. 21.

Fœm.—Tibiis intermediis inermibus.

A. Nigra, capite (ore excluso) prothoraceque rufis nitore cæruleo micantibus, elytris saturate cyaneis.

Lema Malayana, Lac. Mon. Phyt. i. p. 378.

B. Læte rufo-ferruginea, capite antice, antennis (basi prætermissa) unguiculisque nigris, elytris læte cyaneis.

Lema melanocera, Lac. Mon. Phyt. i. p. 374.

C. Obscure rufo-fulva aut rufo-testacea, elytris cyaneis.

Crioceris dichroa, Blanch., Homb. et Jacq. Voy. au Pôle Sud, Zool. iv. p. 310, pl. 18, fig. 2.

D. Nigra, pectore abdomineque fuscis, supra fusco-fulva; elytris vitta lata communi infra basin ad apicem extensa, antice angustata, obscure cærulea, ornatis.

Lema Bretinghami, Baly, Journ. of Entom. i. p. 278.

E. Flavo-rufa, pectore abdomineque (interdum) nigris.

Lema fulvula, Lac. Mon. Phyt. i. p. 338.

F. Subtus nigro-cyanescens, supra cyanea, antennis pedibusque nigris."

Lema cyanea, Fabr., Lac. Mon. Phyt. i. p. 349.

Hab. Java, Type and Var. B. Makassar, Var. B. Bor-

neo, Var. C. Sumatra (sec. Olivier). Also Siam, India (Coast of Coromandel), and China (Canton River), type and varieties.

This species, which is spread over a wide geographical area, viz. from China to Makassar, and is apparently not uncommon, varies greatly in colour; from this cause it has been described by various authors under separate names; having had the opportunity of examining a long series of specimens from different localities, I have no hesitation in uniting them all under one head.

31. *Lema Javana*, Lac.

Mon. Phyt. i. p. 382.

"Elongata, saturate cyanea; elytris dilutioribus, prothorace rufo, elongatulo, pone medium modice coarctato, supra basi parum profunde transversim impresso; elytris convexis, dorso subplanis, basi haud impressis, punctato-striatis, interstitiis apice convexis." (Lacordaire.)

Long. $2\frac{2}{3}$ lin.

Hab. Java.

32. *Lema Smithii*, n. sp.

Elongata, robusta, subcylindrica, pallide rufo-testacea, nitida; antennis gracilibus, filiformibus, fulvis; thorace latitudine paullo longiori, medio valde coarctato, disco tenuiter punctato, punctis in medio paullo majoribus et in serie longitudinali unicâ dispositis, ante basin transversim sulcato, sulci medio unifoveolato; elytris cæruleo-nigris, infra basin transversim depressis, tenuiter punctato-striatis, striis ad apicem distinctis, punctis ante medium profundius impressis; interspatiis planis, ad apicem convexiusculis; unguiculis nigris.

Long. 4—$4\frac{1}{2}$ lin.

Hab. Celebes.

Head deeply constricted behind the eyes, the latter deeply notched; face trigonate; front impressed with a longitudinal groove; antennæ more than half the length of the body, not thickened towards the apex; third, fourth and fifth joints increasing in length, the rest each about equal to the fifth. Scutellum pentagonal. Elytra nearly four times the length of the thorax, very convex; interspaces between the striæ very finely but subremotely punctured. Hinder thighs scarcely thicker than the others, rather longer than the first two segments of the abdomen. Abdomen clothed with adpressed fulvous hairs.

33. Lema Sumatrensis, n. sp.

Elongata, subcylindrica, rufo-ferruginea, nitida, subtus aureo-sericea; antennis filiformibus, pallidis, dimidio corporis longioribus; thorace elongatulo, medio profunde coarctato, dorso lævi, basi non impresso; elytris parallelis, nigro-cæruleis, infra basin late transversim impressis, tenuiter punctato-striatis, striis ad apicem distinctis, interspatiis planis, singulis serie unicâ punctorum minutorum impressis; tibiis apice fuscis, unguiculis nigris.

Long. $3\frac{1}{2}$ lin.

Hab. Sumatra.

Head triangular, apex of jaws and eyes black, the latter deeply notched; antennæ moderately robust, nearly two-thirds the length of the body, filiform, joints cylindrical. Thorax rather longer than broad, sides deeply constricted; upper surface without any basal depression or sulcation, middle of disc impressed with a few very fine punctures, which are only visible under a lens. Scutellum trigonate, obscure rufous, its apex obtusely trunctate. Elytra parallel, narrower than in *L. Smithii*, convex, finely but distinctly punctate-striate; interspaces plane, each one impressed with a single row of very minute punctures, which can only be seen under a glass. Legs robust; extreme apex of tibiæ fuscous. Mesosternum elongate, sides sinuate; apex curved, obtusely rounded.

Nearly allied to *L. Smithii*, narrower, one-third less in size; from *L. cyanipennis* it may be known by the much finer punctuation of the elytra, and by the different form of the apex of its mesosternum; from *L. cyanesthis* it can at once be separated by the different form of the thorax.

34. Lema atripennis, n. sp.

Elongata, subcylindrica, rufo-testacea, nitida; antennis filiformibus, obscure fusco-fulvis, articulis intermediis nigris, oculis profunde emarginatis; thorace latitudine paullo longiori, lateribus valde coarctato, disco ante basin transversim sulcato, medio punctis sparsis minutis impresso; elytris nitido-nigris, infra basin transversim depressis, basi paullo elevatis; punctato-striatis, striis integris, punctis ante medium magnis, profundis, postice parvis, minus fortiter impressis, interspatiis ad apicem convexiusculis.

Long. 3 lin.

Hab. Gilolo.

Neck deeply constricted, face triangular, front depressed, causing the eyes with their orbital spaces to appear very prominent; antennæ two-thirds the length of the body, more robust than in the last species, somewhat narrowed at their base, basal joints rufo-testaceous, third, fourth and fifth joints gradually increasing in length and slightly in thickness; the rest nearly equal to the fifth. Scutellum elongate-trigonate, its apex truncate. Elytra about three times the length of the thorax, parallel, interspaces (as seen under a lens) remotely punctured. Hinder thighs not extending beyond the second segment of the abdomen, not thicker than the rest. Abdomen nearly glabrous.

35. *Lema quadrinotata*, n. sp.

Elongata, subcylindrica, nigra, nitida; capite, thorace (hoc nigro-quadrinotato), scutello, femoribus anticis quatuor infra, unguibusque rufo-fulvis; thorace subquadrato, lateribus valde coarctato, dorso ante basin leviter transversim sulcato, disco tenuissime punctato; elytris infra basin leviter transversim depressis, punctato-striatis, striis integris, punctis ante medium sat magnis, profunde impressis, interspatiis infra basin rude transversim crenulatis, ad apicem convexis; nigro-cæruleis, ab apice ad medium rufo-fulvis.

Long 3 lin.

Hab. Sumatra.

Head deeply constricted behind the eyes, the latter narrowly notched; face triangular; antennæ slender, filiform, three-fourths the length of the body, third and fourth joints nearly equal, the fifth nearly as long as the two preceding united. Thorax deeply constricted in the middle of the sides, upper surface marked with four small black spots, arranged in a square on the disc. Elytra rather more than three times the length of the thorax, flattened along the back, being slightly depressed along the anterior portion of the suture; the basilar space on each elytron indistinctly elevated; humeral callus rather prominent, the puncturing in front on the basilar space and anterior half of the suture coarse and deeply impressed, the stria next the suture deeply sulcate, interspaces between the basilar space and middle of elytron transversely wrinkled. Hinder thighs scarcely thicker than the rest, shorter than the abdomen. Abdomen and legs covered with short adpressed golden or silvery sericeous pubescence.

The following species is unknown to me, but probably belongs to the genus *Lema*.

36. *Crioceris? semilimbata*, Blanch.

Homb. et Jacq. Voyage au Pôle Sud, Zool. iv. p. 307, pl. 18, fig. 3.

"Crassa, testacea; antennis basi concoloribus, apice obscurioribus; prothorace medio constricto, vix convexo, basi transversim impresso; elytris latis, nigris, nitidis, margine laterali antico testaceo, subtilissime striato-punctatis, striis duabus suturalibus basi grosse punctatis.

Long. 10—11 millim."

Hab. Triton Bay, New Guinea.

This species ought probably to be placed near *L. pectoralis*, *ante*, p. 9.

Genus Crioceris, Geoffroy.

Lac. Mon. Phyt. i. p. 546.

1. *Crioceris quadripustulata*, Fabr.

Lac. Mon. Phyt. i. p. 558.

"Modice elongata, valida, nigra; prothorace elongato, subcylindrico, in medio parum coarctato; elytris convexis, maxima ex parte lævibus, singulo maculis duabus magnis quadratis (una laterali baseos, altera infra medium) luteo-flavis."

Long. 5 lin. (Lacordaire.)

Hab. Java, Malacca, Penang; also Siam.

2. *Crioceris ornata*, n. sp. (Pl. I. fig. 2.)

Oblonga, subcylindrica, nigra, nitida; thorace latitudine paullo longiori, lateribus modice coarctato, dorso disci medio tenuissime impresso, ante basin obsolete transversim sulcato; scutello glabro; elytris dorso subdepressis, infra basin transversim excavatis, basi ipsâ obsolete elevatâ; punctato-striatis, striis postice deletis, utrisque plagâ magnâ semilunatâ flavâ, longitudinaliter a basi ad medium et lateraliter vix intra suturam fere ad marginem exteriorem extensâ, intus valde sinuatâ, ornatis.

Long. 4 lin.

Hab. Sarawak, Borneo.

Head very deeply constricted behind the eyes; face subelongate, eyes deeply notched; antennæ filiform, four-fifths the length of the body, slightly flattened and somewhat thickened

towards their apex; second and third joints short, nearly equal, forehead impressed with a longitudinal groove. Thorax narrow, cylindrical, sides moderately constricted. Scutellum elongate-trigonate, its apex truncate. Elytra much wider than the thorax, broad, oblong, puncturing on their surface fine but deeply impressed on the inner half of the basal portion of the disc, entirely obliterated on the hinder part, with the exception of a single row next the suture; whole outer half of the disc also smooth and entirely impunctate.

3. *Crioceris semipunctata*, Fabr. (Pl. I. fig. 1.)

Lac. Mon. Phyt. i. p. 558.

" Modice elongata, valida, rufo-ferruginea, nitida, subtus plagiatim aureo-sericea; prothorace elongato, in medio leviter coarctato, supra obsolete vageque punctulato; elytris convexis, ante medium late transversim impressis, subtiliter (basi prætermissâ) punctato-striatis." (Lacordaire.)

Mas.—Antennis longioribus, subfusiformibus, articulis cylindricis.

Lema semipunctata, Fabr.

Fœm.—Antennis brevioribus, apice nonnihil incrassatis, articulis cylindricis, arcte connexis.

Lema Dehaanii, Guér.

Crioceris Dehaanii, Lac. Mon. Phyt. i. p. 559.

Long. $3\frac{1}{2}$—$4\frac{1}{2}$ lin.

Hab. Java, Borneo, Malacca, Sumatra, Celebes; also Siam and India.

All the specimens that I have seen of this species have the pubescence on the legs pale golden, whilst that on the abdomen is silvery-white.

4. *Crioceris binotata*, n. sp.

Elongata, parallela, subcylindrica, obscure fulva, nitida, subtus aureo-sericea; antennis validis, subfusiformibus, apice vix attenuatis, articulis cylindricis; oculis nigris; thorace elongato, medio modice coarctato, supra lævi, baseos medio obsolete impresso; elytris convexis, infra basin transversim impressis, basi elevatis, profunde punctato-striatis, striis infra basin deletis; singulatim plagâ transversâ subovatâ, ante medium positâ, nigrâ.

Long. 4 lin.

Hab. Borneo.

Head elongate-trigonate ; eyes black, deeply notched ; antennæ very robust, scarcely more than half the length of the body, thickened from beyond the second joint, scarcely tapering at their apex ; joints cylindrical, the terminal joints being scarcely more slender than the preceding ones. Thorax about one-fourth longer than broad, sides moderately constricted in their middle ; upper surface smooth, nitidous, impressed on the middle disc with some very minute punctures, only visible under a lens. Scutellum trigonate, its apex obtuse ; surface covered with adpressed sericeous hairs. Elytra much broader than the thorax, but nevertheless narrower than in *C. semipunctata*, parallel, broadly depressed transversely below the basilar space, the base itself moderately elevated ; surface punctured entirely as in *C. semipunctata*, with this exception, that the rows of punctures are quite obsolete below the middle of the elytra, a single row of fine punctures near the suture, and another on the outer margin, alone excepted, the place of the absent punctures being indicated however by a small piceous spot. The pubescence on the body beneath is much abraded in the solitary specimen before me, but that on the abdomen appears to be arranged in four rows of fasciculi.

5. Crioceris obliterata, n. sp.

Late oblonga, fulvo-rufa, nitida ; thorace subquadrato, medio modice coarctato, remote punctato ; antennis (articulo basali excepto), femorum apice, tibiis, tarsis elytrisque nigris, his thorace multo latioribus, basi elevatis, infra basin late transversim impressis, punctato-striatis, striis supra sulcum transversum unâ vel alterâ prope basin, alterâque prope suturam profunde impressis, cæteris deletis ; scutello sericeo.

Var. A. Fulva, antennis pedibusque ut in typo, pectore nigro ; elytris fulvis, piceo-punctato-striatis.

Long. $3\frac{1}{2}$ lin.

Hab. Dory, New Guinea.

Head deeply constricted behind the eyes, face triangular, excavated between the eyes, impressed at the apex of the epistome with a short longitudinal groove ; antennæ longer than half the length of the body, moderately robust, slightly tapering at their extremity, but scarcely fusiform ; joints cylindrical, the first obscure rufous, nearly globular, incrassate, second shorter than the first, third and fourth equal, each being twice as long again as the second, fifth almost as long as the two preceding united, sixth and following nearly equal, severally rather shorter than the fifth.

Thorax subquadrate, cylindrical, nearly impunctate, being only impressed here and there with a few very remote punctures. Elytra much broader than the thorax, distinctly raised, basilar space bounded beneath by a broad transverse depression; surface smooth and shining; along the sutural margin, here and there on the basilar space, on the transverse depression and along the exterior half of the lateral border, which is also longitudinally sulcate, are a number of large deep impressions, which evidently form part of the rows of punctures common to the majority of the species of the genus; over the remainder of the surface these punctures are entirely obliterated, their course being only indicated by very faintly-marked longitudinal grooved lines. Abdomen smooth, sericeous; mesosternal process narrow, tapering from base to apex.

This species, in its hairy scutellum, in the form of its antennæ and the puncturing of its elytra, closely approaches *C. semipunctata;* it is however a much shorter and broader insect; the antennæ are also shorter and the mesosternal process narrower; in *C. semipunctata* this latter part is broader, and has its sides subparallel. Var. A resembles *C. semipunctata* in colour, but has the elytra covered with the usual number of rows of piceous dots, which are smooth and impunctate, a certain number only at the base, as in the type, being impressed each with a single deep fovea.

6. *Crioceris biplagiata*, n. sp.

Oblonga, subcylindrica, nitido-fulva, utriusque elytri plagâ longitudinali paullo ante medium fere ad apicem extensâ antennisque nigris; tibiis tarsisque piceis; antennis robustis, filiformibus; thorace latitudine paullo longiori, lateribus modice coarctato, disco impunctato.

Long. $3\frac{1}{4}$ lin.

Hab. Morty Island.

Face subelongate-trigonate, clothed with adpressed coarse hairs; neck deeply constricted behind the eyes, the latter angulate-emarginate; epistome not extending upwards above the insertion of the antennæ, a deep longitudinal groove passing from its apex to join the frontal grooves; antennæ half the length of the body, robust, cylindrical, the basal joint short, rufous, the second moniliform, third, fourth and fifth each increasing both in length and thickness, the remaining joints each about equal to the fifth. Thorax cylindrical, its lateral constriction occupying about the middle third of the side, anterior margin convex; upper surface without

basal impression, smooth, impunctate. Scutellum elongate-trigonate, closely covered with adpressed silvery hairs. Elytra much broader than the thorax, oblong, subcylindrical, basilar space elevated, bounded beneath by a broad shallow depression; within the humeral callus is a broad longitudinal groove; each elytron covered with eleven rows of piceous dots, the first short; it will be found on examination that a few only of these dots on the basal portions of the five or six rows nearest the suture are impressed each with a single fovea; on the rest of the surface these dots are smooth and impunctate; interspaces also impunctate; on the hinder portion of each elytron the rows are lost in the longitudinal black patch. Body beneath clothed with adpressed silvery sericeous hairs; hinder thighs scarcely thicker than the others, extending for a short distance beyond the third segment of the abdomen. Mesosternal process narrow, tapering from base to apex.

It is with great doubt that I separate this insect from *C. obliterata;* in form of antennæ, thorax, mesosternal process and in the mode of punctation of elytra, it exactly agrees with that species; in coloration it is intermediate between the type and var. A; it differs otherwise in the elytra being narrower and more cylindrical above; it is however very probable that in a series of examples this character would be found to vary, in which case it must be considered only a variety of *obliterata.*

7. *Crioceris impressa*, Fabr.

Lac. Mon. Phyt. i. p. 562.

"Nitida, subtus plagiatim argenteo-sericea; antennis magis minusve compressis ac perfoliatis; prothorace latitudine antica nonnihil longiore, in medio modice coarctato, supra sat crebre punctato [punctis sæpe plus minusve obsoletis]; elytris convexis, mediocriter punctato-striatis, interstitiis planis, lævibus," [processu mesosternali oblongo-quadrato].

Long. $3\frac{3}{4}$—5 lin. (Lacordaire.)

A. Oblongo-parallela.

Crioceris impressa, Fabr.

a. Corpore nigro, elytris obscure rufis.

b. Capite, antennis prothoraceque obscure rufis; corpore subtus nigro vel piceo.

c. Corpore toto fulvo.

d. Corpore toto nigro.

B. Subelongata, parallela.

Crioceris crassicornis, Oliv. Ent. vi. p. 731, 6, pl. i. fig. 6.

Crioceris castanea, Lac. Mon. Phyt. i. p. 564.

Crioceris omophloides, Lac., *ibid.*

a. Corpore nigro, elytris rufo-fulvis aut rufis.

b. Corpore nigro aut piceo; capite, thorace elytrisque obscure fulvis.

Hab. Borneo, Malacca (Singapore), Java, Amboina, Manilla, Bouro; also Ceylon, Siam, the whole continent of India, China.

This insect is one of the most abundant and widely spread in the present genus, being commonly sent from almost every portion of the Asiatic quarter of the globe east of Siberia; as might be expected in a species possessing so extensive a geographical range it is highly variable both in form and colour, and has consequently been described by the older authors and by Lacordaire under many different names; the species, at its extreme points of divergence, presents two well marked types, one broad, less parallel and much more robust, the other longer, narrower and more parallel; between these exists an unbroken chain of intermediate varieties, thus proving that they belong to only one highly-variable species. Although not entitled to the rank of sub-species or local varieties, all the intermediate forms being found more or less abundantly throughout the whole geographical range of the species, still the first or broader type is the dominant one in Southern India, Ceylon and the Malay Archipelago, whilst the second or elongate form is the one most usually met with in Assam, Northern India and China.

8. *Crioceris Clarkii*, Baly. (Pl. I. fig. 7.)

Trans. Ent. Soc. 3rd Ser. vol. i. p. 613.

Oblongo-elongata, subcylindrica, nigra, nitida; femoribus anticis quatuor medio, posticis infra, thorace elytrorumque limbo (hoc basi et apice late dilatato) rufo-fulvis; scutello glabro; elytris punctato-striatis, striis apice sæpe deletis; processu mesosternali subtrigonato.

Var. A. Thorace nigro, abdominis disco rufo-piceo.

Var. B. Elytris totis rufo-fulvis.

Long. 4 lin.

Hab. Ceram; var. B, Batchian.

Head deeply constricted behind the eyes, face triangular, front remotely punctured; antennæ shorter than half the length of the body, subincrassate, outer joints slightly compressed and subperfoliate, eyes notched. Thorax subquadrate, scarcely broader than long; sides constricted in the middle; above subcylindrical, punctured as is *C. impressa*, the single longitudinal row of punctures down the middle of the disc being also present as in that species. Elytra oblong, much broader than the thorax, slightly dilated behind, their apex broadly rounded; above convex, indistinctly flattened along the back, transverse depression below the basilar space usually obsolete, at other times present, although indistinct; punctures arranged in eleven longitudinal rows, the first of which is very short; the punctures are large, deeply impressed, and placed at irregular intervals on the anterior half of the rows; on the hinder half they become much smaller and indistinct, the rows themselves being frequently entirely obsolete; the inner row next the suture is however always sulcate on the hinder portion of its course, and, together with one or two of the outer striæ, remains always entire; interspaces smooth, impunctate. The amount of fulvous colour on the surface varies greatly; in some specimens, the black ground occupies almost entirely the posterior three-fourths of the surface, the basal fourth, and a narrow line extending round the outer limb, alone being fulvous; in others the fulvous colour is extended inwards so greatly in all directions (more especially however at the base and apex) as to leave only a common central black patch. Under surface clothed as in *C. impressa*, but the sericeous patches on the surface of the abdomen are less strongly defined. Very closely allied to *C. impressa;* setting aside colour, the only difference between the two species is in the form of the process of the mesosternum; in *C. impressa* this part is oblong-quadrate, with its apex broadly truncate; in *C. Clarkii* it is subtrigonate, with its apex obtusely truncate.

9. *Crioceris eximia*, n. sp.

Elongata, parallela, subcylindrica, pallide fulva, nitida; pectore, abdomine, coxis, femoribus tibiisque posterioribus quatuor, unguiculis, elytrorumque apice nigris; antennis sat gracilibus, subfiliformibus, corporis dimidio paullo longioribus; thorace cylindrico, subquadrato, lateribus sat constrictis, disco hic illic distincte punctato, ante basin late sed obsolete transversim depresso; scutello glabro; elytris infra basin obsoletius transversim depressis, punctato-striatis, striis ad apicem integris,

punctis pallide piceis, ante medium majoribus, profundius impressis ; interspatiis planis, singulis serie unicâ punctorum minutorum impressis.

Long. $3\frac{2}{3}$ lin.

Hab. Sarawak.

Elongate, parallel. Head deeply constricted behind the eyes, the latter deeply and broadly notched ; face trigonate, forehead impressed for its whole length by a longitudinal groove ; antennæ with their third and fourth joints each twice the length of the second, equal, cylindrical, the rest to the apex slightly compressed, obsoletely perfoliate. Thorax subquadrate, sides deeply constricted in the middle, armed before their apex with an indistinct tubercle. Scutellum elongate-trigonate, its apex obtuse. Elytra more than four times the length of the thorax, parallel, a small patch at their apex black. Body beneath clothed with adpressed silvery hairs, arranged on the abdomen as in *C. impressa*. Hinder thighs not extending beyond the second abdominal segment.

10. *Crioceris nucea*, Lac.

Mon. Phyt. i. p. 569.

" Oblonga, livide flavo-testacea, nitida ; antennis pallidis, filiformibus ; prothorace elongatulo, subcylindrico, in medio modice coarctato, supra subtilissime seriatim punctulato ; elytris modice convexis, lineis decem e punctis fuscis ornatis, quatuor internis basi remote punctatis, interstitiis planis, lævissimis." (Lacordaire.)

Long. 4 lin.

Hab. Philippines.

11. *Crioceris unipunctata*, Oliv.

Lac. Mon. Phyt. i. p. 571.

" Oblonga, rufo-ferruginea, nitida ; pectore, abdomine pedibusque quatuor posticis nigris ; subtus plagiatim argenteo-sericea ; antennis filiformibus ; prothorace medio sat profunde coarctato, supra basi vage transversim impresso, disco subtilissime punctulato ; elytris convexis, tenuiter punctato-striatis, singulo maculâ mediâ orbiculatâ nigrâ." (Lacordaire.)

Long. $3\frac{1}{2}$—4 lin.

Hab. Manilla.

12. *Crioceris Saundersi*, n. sp.

Modice elongata, subcylindrica, nitido-fulva ; antennis, pectore,

abdominis basi, pedibusque nigris; antennis gracilibus, elongatis, filiformibus; thorace latitudine longiori, lateribus medio modice coarctato, supra lævi, vix ante basin leviter transversim sulcato, disci medio longitudinaliter biseriatim punctato; elytris thorace multo latioribus, dorso obsolete depressis, infra basin obsolete transversim impressis, punctato-striatis, punctis apicem versus deletis.

Long. 4½ lin.

Hab. Soulu Islands.

Head small, deeply constricted, almost strangulate, behind the eyes; face elongate-trigonate, palpi piceous, upper portion of face rugose-punctate, vertex smooth, impressed with a very short longitudinal fossa; antennæ slender, entirely filiform, three-fourths the length of the body, second to the fourth joints increasing in length, the rest each nearly equal to the fourth; eyes deeply but narrowly notched. Thorax somewhat longer than broad, slightly narrower in front, cylindrical, the lateral constriction not occupying the whole length of the sides, apical margin convex. Scutellum glabrous, piceous, narrowly trigonate, its apex rounded. Elytra more than twice as broad as the thorax, somewhat flattened above, basilar space obsoletely raised, bounded beneath by a broad but shallow depression, humeral callus bounded within by an indistinct longitudinal groove; surface of each elytron impressed with eleven rows of punctures, the first very short, the second and eleventh are entire, the rest are only visible on the anterior portion of the surface, the punctures being replaced below by very small piceous spots, similar to those in *C. biplagiata;* interspaces smooth, plane, impunctate; lateral border thickened from below its base. Body beneath closely sericeous; hinder thighs not thickened, shorter than the abdomen. Mesosternal process trigonate; its apex broadly truncate.

13. *Crioceris dimidiata*, Lac.

Mon. Phyt. i. p. 572.

"Oblongo-parallela, luteo-flava, nitida; pectore pedibusque quatuor posticis nigris, anticis abdomineque infuscatis; antennis filiformibus; prothorace medio modice coarctato, supra obsolete sparsimque punctulato; elytris convexis, tenuiter punctato-striatis, basi late nigricantibus."

Long. 3½ lin. (Lacordaire.)

Hab. Java.

14. *Crioceris Pfeifferæ*, Baly.

Trans. Ent. Soc. 3rd Ser. vol. i. p. 614.

Oblongo-elongata, subcylindrica, sanguinea, nitida; antennis (basi exceptâ) elytrorumque dimidio antico, tibiis tarsisque nigro-piceis; elytris punctato-striatis, punctis infra basin sat profunde, prope apicem tenuiter impressis.

Long. $3\frac{4}{5}$—$4\frac{1}{4}$ lin.

Hab. Amboina, Ceram. First brought home by Madame Pfeiffer, and subsequently by Mr. Wallace.

Head deeply constricted behind the eyes; face forming a somewhat elongated triangle; front smooth, without longitudinal impression; antennæ scarcely half the length of the body, somewhat slender, filiform, fifth joint shorter than the two preceding united, three lower joints rufous, the rest black; eyes broadly notched. Thorax subquadrate, subcylindrical, sides deeply constricted in the middle, surface smooth, nearly impunctate, a few remote punctures being only visible on the disc under a lens; in some specimens a row of punctures similar to that in *C. impressa* runs down the middle of the disc. Scutellum forming an elongated triangle, the apex of which is rounded; its surface glabrous. Elytra much broader than the thorax, nearly four times its length, oblong, sides nearly parallel, apex broadly rounded; above convex, transversely but obsoletely depressed below the basilar space, longitudinally impressed within the humeral callus; each elytron with eleven rows of punctures, the first short; punctures placed at more regular intervals on the striæ than in *C. Clarkii*, deeply impressed in front, very small and finely impressed on the hinder half of the elytron, but nevertheless distinct to the apex; interspaces smooth, impunctate. The black colour on the elytra varies in extent, in some specimens occupying less than half, in others covering two-thirds of the surface. Abdomen somewhat sparingly clothed with adpressed fulvous hairs, which form, however, a distinct row just within the edge of each segment. Hinder thighs not extending beyond the first two segments of the abdomen.

15. *Crioceris Doryca*, Boisd.

Lac. Mon. Phyt. i. p. 570.

"Oblonga, rufo-ferruginea; antennis (articulis quatuor baseos prætermissis), abdomine, femoribus posticis dorso, tibiis intus, tarsisque nigris; prothorace medio modice coarctato, supra lævi, disco lineatim subtiliter punctulato; [scutello glabro]; elytris obscure æneo-viridibus, nitidissimis, convexis, basi

conjunctim elevatis, lævibus, striis primâ decimâque integris, reliquis basi tantum conspicuis." (Lacordaire.)

Long. 4—4½ lin.

Hab. New Guinea.

16. *Crioceris obesa*, Baly.

Trans. Ent. Soc. 3rd Ser. vol. i. p. 616.

Late oblonga, convexa, nitido-rufo-fulva; antennis filiformibus, fulvis; scutello fulvo-piloso; elytris ampliatis, valde convexis, nitido-nigris, apice obscure rufis, infra basin transversim depressis, tenuiter punctato-striatis, striis disci postici deletis; tibiis tarsisque obscure rufis, unguiculis piceis.

Long. 5 lin.

Hab. Amboina.

Head deeply constricted behind the eyes; face elongate-trigonate; front impressed with a longitudinal groove; antennæ filiform, somewhat slender, two-thirds the length of the body, pale fulvous, apex of terminal joint fuscous; eyes angularly notched. Thorax subcylindrical, constricted on the sides, surface smooth, impressed with a very few minute punctures, arranged on the disc in a longitudinal row. Hinder tibiæ paler than the others.

The very robust form and dilated elytra will at once distinguish this species from *C. terminata;* the antennæ are much longer and entirely filiform, and the fourth joint distinctly longer than the third; in *C. terminata* these two joints are equal.

17. *Crioceris terminata*, Baly.

Trans. Ent. Soc. 3rd Ser. vol. i. p. 615.

Oblongo-elongata, subcylindrica, rufo-fulva, nitida; oculis elytrisque nigris, his tenuiter punctato-striatis, apice rufo-fulvo; scutello glabro.

Long. 4 lin.

Hab. Ternate, Batchian.

Head deeply constricted behind the eyes, face elongate-triangular, forehead smooth, impressed behind with a short longitudinal fossa; antennæ moderately robust, nearly filiform, slightly thickened from beyond the fourth joint, about half the length of the body; eyes notched. Thorax subquadrate, subcylindrical, sides deeply constricted at their middle, upper surface smooth, remotely impressed with fine punctures. Scutellum forming an elongate triangle, its apex rounded. Elytra much broader than the thorax, more than three times its length, sides parallel, apex

regularly rounded; above convex, indistinctly impressed at the base within the humeral callus, transversely depressed below the basilar space, surface smooth and shining, each elytron with eleven rows of fine punctures, visible to their apex, the first short; interspaces smooth and flat, impunctate. Legs moderately robust, hinder thighs scarcely thicker than the others, equal in length to the first two segments of the abdomen. Abdomen sparingly covered with fine adpressed concolorous pubescence, edges of the segments clothed with a row of coarse hairs.

This insect is nearly allied to *C. Pfeifferæ;* the pale antennæ and legs, together with the much smaller extent of the red colour on the elytra, will at once separate it from that species. I possess three specimens of the insect from two localities, but they do not show any variation in colouring.

The following species, described since the publication of Lacordaire's Monograph, is unknown to me.

18. *Crioceris nigrozonata*, Blanch.

Homb. et Jacq. Voyage au Pôle Sud, Zool. iv. p. 309, pl. 18, fig. 4.

"Ovata, tota testacea, nitida; antennis nigris, basi testaceis, prothorace lævi, convexo, postice constricto, transversim impresso; elytris concoloribus, subtiliter striato-punctatis, fasciâ posticâ, suturâ interruptâ nigrescenti; pedibus totis testaceis.

Long. 8 millim."

Hab. Triton Bay, New Guinea.

Blanchard does not make any distinction between *Lema* and *Crioceris:* it is therefore possible that the present species belongs to the former genus; if not, it ought to stand next to *C. eximia* (*ante*, p. 34).

Genus Brachydactyla, Lac.

Mon. Phyt. i. p. 599.

1. *Brachydactyla discoidea*, Guér. (Pl. I. fig. 8.)

Lac. Mon. Phyt. i. p. 560.

"Ferruginea; antennis, femorum apice, tibiis tarsisque nigris; prothorace lævi, quadrato, posterius ante basin nonnihil constricto; elytris mediocriter punctato-striatis, saturate chalybeis vel violaceis, maculâ magnâ communi baseos, ferrugineâ."

Long. $3\frac{1}{3}$—$3\frac{3}{4}$ lin. (Lacordaire.)

Hab. Java.

Fam. MEGALOPIDÆ, Lac.

Genus TEMNASPIS, Lac.

Mon. Phyt. i. p. 716.

1. *Temnaspis Javana*, Guér.

(*T. Javanus*), Lac. Mon. Phyt. i. p. 717.

" Oblongo-parallelus, læte luteus, supra rubro-croceus, pubescens; metathorace valide bi-mamillato, prothoracis maculâ, pectore, abdominis apice, elytrorum fasciâ baseos communi singuloque maculâ infra medium obliquâ, nigris.

Mas.—Femoribus posticis valde incrassatis, subtus apice spinis tribus in triangulum digestis, armatis." (Lacordaire.)

Long. 4½ lin.

Hab. Java.

2. *Temnaspis bipartita*, Lac.

(*T. bipartitus*), Mon. Phyt. i. p. 718.

" Oblongo-parallelus, niger, pubescens; capite, antennis, prothorace, pedibusque anticis flavis; elytrorum dimidiâ parte anticâ rubro-fulvâ; metathorace obtuse bi-mamillato.

Mas.—Femoribus posticis valde incrassatis, subtus apice spinis duabus contiguis, anteriore majori, armatis." (Lacordaire.)

Long. 5 lin.

Hab. Java.

3. *Temnaspis fervida*, Lac.

(*T. fervidus*), Mon. Phyt. i. p. 719.

" Oblongo-parallelus, pubescens, subtus luteo-testaceus; abdomine infuscato, supra (præsertim in elytris) rubro-croceus; metathorace obtuse bi-mamillato.

Mas.—Femoribus posticis sat incrassatis, subtus apice spinis duabus contiguis, anteriore majori, armatis; abdominis segmento ultimo transversim excavato." (Lacordaire.)

Long. 5 lin.

Hab. Java.

4. *Temnaspis rubens*, Klug.

Lac. Mon. Phyt. i. p. 720.

" Subelongatus, subtus luteo-testaceus albidoque villosus; pectore abdomineque infuscatis, supra rubro-croceus, sparsim

fulvo-pubescens; elytris depressiusculis; metathorace vix bi-mamillato.

Mas.—Femoribus posticis sat incrassatis, apice subtus acute unidentatis." (Lacordaire.)

Long. 4 lin.

Hab. Java.

5. *Temnaspis Westwoodii*, n. sp. (Pl. I. fig. 6.)

Subelongata, parallela, fulvo-flava aut crocea, nitida, sparse pubescens; metathorace, abdomine femoribusque posticis nigro-piceis, flavo-variegatis, tarsis pallide piceis; fronte plana, unifoveolata; metathorace obsoletius bi-mamillato.

Mas.—Femoribus posticis valde incrassatis, subtus bispinosis, spinâ anticâ longiori.

Long, $4\frac{3}{4}$—$5\frac{1}{2}$ lin.

Hab. Manilla.

Front flattened, coarsely and irregularly, but not very closely punctured, impressed in the middle with a single deep fovea; eyes black, deeply notched; antennæ shorter than half the length of the body; second joint short, moniliform, third elongate, subfiliform, fourth half the length of the third, fifth and following joints compressed and dilated, fifth to the tenth very sparingly clothed with robust hairs, subtrigonate, the fifth one-fourth longer than the sixth, the rest nearly equal, the eleventh subovate, equal in length to the fifth. Thorax rather broader than long, sides straight, very slightly converging from base to apex; apical border truncate, obsoletely sinuate in the middle; upper surface smooth and nitidous, bounded posteriorly by a more or less distinct transverse groove, which is sometimes entirely obsolete, remotely punctured, the punctures large and deeply impressed, being irregularly scattered over the whole surface; on the anterior disc, just behind the apical margin, is a large ill-defined shallow triangular depression; on either side at the base, immediately in front of the posterior angle of the thorax, is a short obtuse protuberance. Scutellum triangular, its apex distinctly notched. Elytra much broader than the thorax, sides parallel, above convex, somewhat flattened along the suture; humeral callus prominent, laterally produced, its apex obtuse; surface subremotely punctured, sparingly clothed with suberect fulvous hairs. Body beneath clothed with somewhat coarser hairs; apical segment of abdomen impressed with a shallow fovea.

6. *Temnaspis Cumingii*, Westwood.

Trans. Ent. Soc. 3rd Ser. ii. p. 276.

Subelongata, parallela, sordide flava, nitida, sparse pubescens; fronte medio uni-foveolata; metathorace obtuse bi-mamillato.

Mas.—Femoribus posticis sat valde incrassatis, subtus bispinosis, spinâ anticâ longiori.

Long. $4\frac{1}{2}$—$5\frac{1}{3}$ lin.

Hab. Manilla.

Entirely similar to *T. Westwoodii*, with the exception of the following characters:—Colour flavous, the eyes and apex of jaws black, the labrum, the tarsi above, and the claws fuscous; humeral callus with its apex rather more produced, almost subacute; hinder thighs less thickened, the anterior spine being produced nearly in the same line with the under edge of the thigh, and forming a much less distinct angle with it than in the preceding species.

The above characters may appear very slight, but combined with the difference of colour they are constant in the five individuals (two of *T. Cumingii* and three of *T. Westwoodii*) that I have been able to examine; they appear to me, in a family where the species are separated from each other by such slight differences, sufficient to divide the two.

7. *Temnaspis arida*, Westwood.

Trans. Ent. Soc. 3rd Ser. ii. p. 275.

Subelongata, parallela, fulva, nitida, sparse pubescens; metatathorace bi-mamilloso, transversim striolato, abdomine unguiculisque nigro-piceis, pectore femoribusque posticis pallide fulvo-piceis, his dorso nigro-piceis, antennis (basi exceptâ) fuscis.

Mas ?—Femoribus posticis incrassatis, subtus bispinosis, spinâ anticâ longiori.

Long. $5\frac{1}{2}$ lin.

Hab. Borneo.

Front plane, the central fovea, present in the two preceding species, obsolete, surface irregularly but not closely punctured; upper half of epistome slightly raised, smooth and shining, nearly impunctate; antennæ nearly half the length of the body, joints formed nearly as in the preceding species, the second and fourth equal, each slightly longer than half the length of the third; joints in the dilated portion rather less trigonate, subquadrate, the fifth only slightly longer than the fourth, four basal joints flavo-fulvous;

the rest pale fuscous; eyes and apex of jaws black. Thorax transverse, sides obliquely converging from base to apex; upper surface transverely convex, coarsely but not closely punctured; apical margin truncate, obsoletely sinuate in the middle, surface on either side, just behind the margin, transversely grooved; on either side at the base is a protuberance similar to the one in the preceding species. Scutellum trigonate, its apex truncate, indistinctly notched. Elytra similar in form and punctation to those of *T. Westwoodii*, the apex of the humeral callus rather more produced. Body beneath clothed with coarser hairs than the upper surface; abdomen entirely nigro-piceous, with the exception of the extreme base, where it passes between the hinder coxæ. Metasternum transversely striolate, mammary prominences more elevated than in either of the two foregoing insects; apex of fifth segment with a semicircular incision, immediately in front of which is a shallow oblong fovea. Hinder thighs less thickened than in *T. Westwoodii*; spines on their under surface similarly arranged to those in that insect; apex of claws piceous.

The absence of a frontal fovea, the pale fuscous antennæ and broader thorax, together with the more prominent mammary processes on the metasternum, will separate this species from its congeners.

The following species of this family, published since the date of Mons. Lacordaire's monograph, has not been seen by me.

Genus Pœcilomorpha, Hope.

Lac. Mon. Phyt. i. p. 721.

1. *Pœcilomorpha Gerstaeckeri*, Westw.

Trans. Ent. Soc. 3rd Ser. ii. p. 273.

"Oblonga, subparallela, crebre punctata; elytris profundius punctatis, rufo-fulva, luteo-setosa, dimidio apicali elytrorum fulvo; mandibulis, articulis 7 ultimis antennarum, maculisque duabus rotundatis in medio elytrorum, metasterni lateribus cum pleuris, maculâ ovali externâ femorum posticorum, et basi segmenti ultimi ventralis (integri) nigris; femoribus posticis magnis, subtus pone medium tuberculo brevi conico armatis; tibiis 4 posticis valde curvatis; metasterno valde convexo.

Long. corp. lin. 4.

Habitat in Java (D. Goring). In Mus. Reg. Berolinensi."

This species is remarkable as being the only one of the genus which is not African.

Fam. CLYTHRIDÆ, Lac.

Genus TITUBŒA, Lac.

Mon. Phyt. ii. p. 141.

1. *Titubœa Laportei*, n. sp. (Pl. II. fig. 8.)

Elongata, parallela, subcylindrica, nigra, argenteo-sericea; thoracis utrinque plagâ transversâ anticâ elytrisque flavo-fulvis, his distincte punctatis, singulis apice, fasciisque duabus latis, primâ infra basin utrinque abbreviatâ, secundâ infra medium positis, nigris.

Mas.—Capite magno, mandibulis magnis, forcipatis; pedibus anticis elongatis.

Fœm.—Capite minori, mandibulis minus validis; pedibus subæqualibus.

Long. 4—5 lin.

Var A. Thorace nigro, dimidio apicali flavo-fulvo.

Hab. Tringanee, Penang, Siam.

Male.—Head large, exserted, face broad, irregularly excavated, closely and coarsely punctured, subopaque, clothed with adpressed sericeous hairs, forehead swollen, convex, nitidous, remotely punctured, anterior margin of epistome angulate-emarginate; jaws robust, the left produced into a long curved tooth, the right shorter, acute; antennæ with the four lower joints obscure fulvous, the rest black, second and third short, equal, the remaining joints compressed and dilated, trigonate; eyes large, elongate, their inner edge notched. Thorax twice as broad as long, broader at the base than the elytra, sides obliquely rounded and converging from behind their middle to the apex, obliquely rounded at the base, posterior angles ill defined; basal border truncate on either side, obsoletely sinuate near the medial lobe, the latter very slightly produced, broadly truncate; upper surface subcylindrical, impressed with deep punctures, which, crowded at the base, become scattered and more distant on the disc and sides; the surface between the larger impressions is closely covered with minute but deep punctures, visible only under a lens. Scutellum trigonate, its sides rounded. Elytra parallel, moderately lobed at the base, distinctly punctured; each elytron with the extreme apex and two broad transverse bands black; these bands have their edges irregularly notched and sinuate, and are placed one below the base, abbreviated at the inner and outer borders; it often sends a short spur upwards on the humeral callus; the second entire, situate immediately below the middle of the elytron. Anterior pair of legs elongate, tibiæ slightly curved, tarsi of the same pair also elongate, the basal joint being about equal in length to the

two following ones; second and third equal, the latter notched for nearly two-thirds its length.

The female has a smaller head, short jaws, its thorax more obliquely narrowed in front, the anterior pair of legs not distinctly longer than the rest, and the apex of the pygidium notched; the basal segment of the abdomen is also impressed with a deep oblong fovea.

2. *Titubœa delectabilis*, n. sp. (Pl. II. fig. 7.)

Elongata, subcylindrica, subparallela, pallide flava, nitida, subtus fulvo-sericea; genubus, tibiis capiteque obscure nigro-æneis; tarsis, scutello, puncto humerali antennisque (his basi fulvâ exceptis) nigris; unguibus obscure fulvis, unguiculis piceis. (*Mas.*)

Long. 4 lin.

Hab. Penang.

Head perpendicular, inserted in the thorax as far as the hinder border of the eyes, the latter large, elongate, slightly convex, their inner border notched; face rugose-punctate, upper portion clothed with fulvous hairs; epistome triangular, glabrous, its anterior surface transversely depressed, the anterior margin concave; antennæ black, four basal joints flavous; second and third joints short, equal, fourth nearly as long as the two preceding united, compressed, increasing in width from base to apex, the remaining joints dilated, triangular; mandibles thick, not much produced beyond the labrum. Thorax twice as broad as long, lateral and basal margins with a narrow reflexed border; sides obliquely converging and slightly rounded from behind their middle to their apex, obliquely rounded at the base, posterior angle distinct, obtuse; basal margin truncate on either side, medial lobe slightly produced, obtusely rounded; upper surface transversely convex, remotely punctured. Scutellum forming an elongated triangle, its extreme apex obtuse; basal half excavated, clothed with adpressed silky hairs, apical half thickened, glabrous. Elytra subcylindrical, scarcely broader than the thorax; sides distinctly lobed at their base, thence nearly straight and subparallel, being scarcely narrowed towards the apex, the latter dehiscent; upper surface distinctly but not very closely punctured. Legs robust, anterior pair elongate, the others gradually decreasing in length; anterior tarsi robust, joints narrowed at their base, basal joint about one-half longer than the second, the second and third equal in length, the latter being divided nearly to its base.

3. Titubœa suspiciosa, n. sp.

Subelongata, subcylindrica, flavo-fulva, nitida, subtus fulvo-sericea; capite, femorum apice, tibiis tarsisque obscure æneo-nigris, scutello antennisque (harum basi fulvâ prætermissâ) nigris; elytris crebre punctatis, singulatim maculis tribus, duabus parvis basi, tertiâque magnâ, vix pone medium positis, obscure nigro-cæruleis. (*Fœm.*)

Var. A. Elytrorum singulorum plagis duabus transversis, alterâ basi alterâque vix pone medium positis, obscure nigro-cæruleis.

Var. B. Elytris obscure nigro-cæruleis, limbo apice dilatato, fulvo.

Long. $4\frac{1}{2}$ lin.

Hab. Penang.

Head moderately exserted, face short, perpendicular, upper portion of face coarsely and rugose-punctate, irregularly elevate-strigose, centre impressed with a broad longitudinal groove, which runs downwards from the front to the apex of the epistome; the latter large, triangular, its surface glabrous, irregularly excavated, deeply but not very closely punctured, its anterior edge angularly notched; antennæ formed entirely as in the preceding species, four basal joints pale fulvous, the rest black; eyes large, their inner edge notched; a large patch on each cheek, together with the mouth, pale fulvous, jaws and apical joints of palpi black. Thorax more than twice as broad as long, sides rounded at the base, thence obliquely converging and slightly rounded to the apex, posterior angles obsolete; basal margin truncate for a short space on either side the medial lobe, which is slightly produced and obtusely rounded; upper surface smooth and shining, impunctate, lateral and basal margins with a narrow recurved border; just in front of the posterior angle is placed a large shallow fovea; several others, much less distinct, are also visible just above and slightly within the basal one. Scutellum forming an elongated triangle, the extreme apex of which is truncate, surface excavated and thickly clothed with adpressed silky hairs on its lower half, slightly thickened and glabrous on its apical portion. Elytra moderately lobed at their base, thence nearly parallel; upper surface closely and coarsely punctured; when viewed obliquely, several indistinctly raised longitudinal vitta are visible on the disc of each. Legs equal in length, basal joint of anterior tarsus much shorter than the two succeeding united. Apical segment of abdomen impressed with a large deep smooth fovea.

Genus Clythra, Laichart.

Lac. Mon. Phyt. ii. p. 190.

1. *Clythra distinguenda*, n. sp. (Pl. II. fig. 6.)

Flavo-fulva, nitida; capite (antennis palpisque prætermissis), scutello, pectore, abdominisque maculis nigris; elytris ampliatis, singulatim maculis subrotundatis quatuor (unâ infra basin, duabus alteris prope medium, his transversim digestis, quartâque ante apicem) nigris.

Long. $5\frac{1}{2}$ lin.

Hab. Penang. Collected by Mr. Lamb.

Head coarsely and irregularly strigose between the eyes, impressed in the middle with a deep fovea; antennæ strongly pectinated, pale flavo-fulvous, basal joint short, thickened, second very short, transverse, third slightly longer than the second, moniliform; anterior edge of epistome concave. Thorax nearly three times as broad as long, sides rounded at the base, with the hinder angles obsolete, thence obliquely rounded and converging to the apex; basal margin slightly sinuate on either side, the medial lobe scarcely produced, very obtuse; upper surface moderately convex, shining, impunctate. Scutellum trigonate, its apex obtuse. Elytra not broader at their base than the thorax, sides broadly dilated, apex obtusely rounded; above convex, smooth and shining, impunctate; each elytron marked with four large black patches, which cover nearly half the surface; the first, transversely ovate, is placed immediately below the basal margin, the second, transverse, is attached to the middle of the suture, the third, parallel with the second, rotundate, is placed just within the lateral margin, and the fourth, subrotundate, is situated a short distance from the apex of the elytron. Body beneath clothed with fine sericeous pubescence. A patch on either side of each of the three basal, together with the disc of the fourth and fifth segments of the abdomen, black; apical segment impressed with fovea; unguiculi nigro-piceous.

2. *Clythra succincta*, Lac.

Mon. Phyt. ii. p. 201.

"Modice elongata, subcylindrica, sæpius postice nonnihil latior, nigra, subtus cum capite griseo-tomentosa; prothorace subtilissime confertim punctulato; elytris flavo-rufis, tenuiter

punctulatis obsoleteque lineatis, fasciâ latâ communi infra medium punctoque humerali, nigris.

Long. 4—6 lin.

Var. A. Humeris impunctatis.

Var. B. Humeris ut in var. A ; elytro singulo maculâ transversâ infra medium, nigrâ." (Lacordaire.)

Hab. Java ; also China, Bengal.

3. *Clythra 12-maculata*, Fabr.

Lac. Mon. Phyt. ii. p. 220.

" Ovata, nigro-cyanea, subtus tenuiter cinereo-pubescens, supra rufo-nitida; prothorace basi valde lobato, obsolete punctulato, fasciâ dentatâ margines haud attingente nigrâ ; elytris crebre punctatis, singulo fasciâ latâ pone medium maculisque tribus (duabus baseos, 3ª apicali), nigris.

Long. $4\frac{1}{2}$—5 lin.

Var. A. Prothorace maculis quatuor, unâ mediâ bilobâ, duabus lateralibus, nigris.

Var. B. Prothorace punctis quatuor nigris.

Var. C. Elytrorum maculâ apicali nullâ." (Lacordaire.)

Hab. Java, Sumatra, Siam.

This handsome species was not met with by Mr. Wallace; all the specimens I have seen were sent from Siam by the late M. Mouhot.

4. *Clythra bella*, n. sp.

Elongata, postice paullo attenuata, nigra, nitida, subtus argenteo-sericea; antennarum basi, thorace elytrisque fulvis, illo fasciâ transversâ baseos utrinque abbreviatâ, medio profunde emarginatâ, his apice et singulatim fasciis duabus utrinque abbreviatis, unâ infra basin, secundâ vix pone medium, nigris.

Long. $4\frac{1}{2}$ lin.

Hab. Timor.

Head short, subtrigonate, face coarsely and deeply punctured, impressed at the apex of the epistome with a deep fovea, front obliquely rugose-strigate on either side, middle of forehead remotely punctured ; eyes large, their inner edge deeply notched ; antennæ with the first four, together with the basal portion of the fifth and sixth joints obscure fulvous, the rest black, second and third joints short, equal, obovate, the others compressed and dilated, trigonate. Thorax twice as broad as long, sides obliquely

rounded and converging from base to apex, anterior angles distinct, subacute; basal margin truncate, obsoletely sinuate on either side, medial lobe slightly produced, obtusely rounded; upper surface subcylindrical, finely but distinctly punctured, the puncturing more crowded in front; on either side the middle disc is a large deep fovea; in front of the basal margin near the hinder angle is an oblique depression; on the basal half of the surface, leaving a narrow fulvous line on the extreme hinder margin, is a broad transverse black band, abbreviated on either side near the lateral border, its medial portion anteriorly produced, the front edge trisinuate on either side, middle deeply emarginate. Scutellum forming an elongated triangle, the sides straight, the apex subacute, shining black, the extreme apex obscure fulvous. Elytra sinuate on the sides, narrowed posteriorly, surface rather more coarsely punctured than the thorax, smooth and shining; the black bands on the surface of each are broad and have their edges irregularly sinuate. Body beneath covered with coarse adpressed sericeous hairs; abdomen closely punctured.

Without being parallel, this species is much narrower and less cylindrical than *C. 12-maculata*, Fabr., from which insect it may also be known by the black head and scutellum, and the different arrangement of the black markings on the thorax and elytra. I have made the above description from a single specimen, a ♂, taken by Mr. Wallace in the Island of Timor; it is probable that, in a series of individuals, the markings would vary as in *C. 12-maculata*, and the transverse bands on the elytra break up into spots.

Genus Diapromorpha, Lac.

Mon. Phyt. ii. p. 227.

1. *Diapromorpha Dejeanii*, Lac.

Mon. Phyt. ii. p. 235.

"Breviter oblongo-cylindrica (nonnunquam postice aliquando attenuata), nigra, subtus griseo-sericea, supra fulvo-nitida; prothorace lævi, fasciâ transversâ nigrâ; elytris evidenter sat crebre punctatis, fasciis duabus transversis, margines haud attingentibus (alterâ baseos valde, alterâ ante apicem vix interruptis), nigris.

Var. A. Supra rufo-sanguinea.

Var. B. Elytrorum fasciâ posticâ latius interruptâ." (Lacordaire.)

Long. 3 lin.

Hab. Malay Archipelago; also India, Nepaul.

I have introduced this species into the present work on the authority of a single specimen formerly belonging to the late Mr. Curtis; it bears a label showing that it came from the Malay Archipelago, but unfortunately without any more precise indication of locality.

Genus Aspidolopha, Lac.
Mon. Phyt. ii. p. 252.

1. *Aspidolopha Buquetii*, Lac. (Pl. II. fig. 2.)
Mon. Phyt. ii. p. 255.

"Breviter ovato-quadrata, saturate cyanea, subtus argenteo-sericea; antennis fuscis; prothorace basi tenuiter punctulato, margine antico et laterali fulvo; elytris crebre evidenterque punctatis, fasciis binis (alterâ mediâ, alterâ subapicali) singuloque macula axillari, saturate cyaneis.

Long. $1\frac{3}{4}$—2 lin.

Var. A. Abdomine pedibusque magis minusve testaceis aut rufescentibus.

Var. B. Abdomine pedibusque ut in var. A; elytris fasciâ mediâ communi punctoque axillari, saturate cyaneis."
(Lacordaire.)

Var. C. Elytris puncto humerali dimidioque postico obscure cyaneis.

Var. D. Elytris (puncto apicali fulvo excepto) obscure cyaneis.

Hab. Java, Sumatra, Singapore; var. B, Penang, Tringanee, Siam; var. C, Borneo.

2. *Aspidolopha imperialis*, n. sp.

Oblonga, crassa, subcylindrica, fulva, nitida, subtus dense aureo-sericea; mandibularum apice antennisque (his basi exceptis) nigris, fronte, scutello, elytrorumque fasciis duabus latis, harum primâ baseos, communi, basi fulvo-binotatâ, margine postico utrinque profunde emarginatâ, secundâ vix pone medium positâ, utrinque abbreviatâ, obscure cæruleis. (*Fœm.*)

Var. A. Elytrorum fasciâ communi basali utrinque late interruptâ.

Var. B. Elytris totis obscure cæruleis.

Long. 4 lin.

Hab. Borneo (Sarawak); var. A and B, Penang.

Upper portion of face finely rugose-punctate, opaque; epistome nitidous, less closely punctured; antennæ rather longer than the

head and thorax; basal joint incrassate, second short, ovate, third and fourth nearly equal, each about one-third longer than the second, the first of them cylindrical, the other compressed, obconic, the remaining joints compressed and triangularly dilated, black, the four lower joints being obscure fulvous; eyes large, slightly convex, their inner border slightly notched. Thorax about twice as broad as long at the base; sides with a narrow reflexed border, rounded, obliquely converging in front, posterior angles rounded, nearly obsolete; basal margin slightly sinuate on either side near the medial lobe, the latter moderately produced, its apex broad, very obtusely rounded; upper surface shining, impunctate. Scutellum trigonate, thickened towards its apex, the extremity of which is truncate; surface smooth, frequently impressed with fine but distinct punctures, clothed at the base with fine adpressed silky hairs. Elytra strongly lobed at the base, their upper surface coarsely punctured, the puncturing becoming finer and rather more distant towards the apex; on the outer disc, a short distance from the margin, is a slightly raised longitudinal vitta. Anal segment of abdomen with a large deep fovea.

In var. A the basal band on the elytra is divided into three large patches, one surrounding the scutellum, and one on either side, on the shoulder, deeply bifurcate.

Genus Gynandrophthalma, Lac.

Mon. Phyt. ii. p. 256.

1. *Gynandrophthalma Malayana*, n. sp. (Pl. II. fig. 4.)

Oblonga, convexa, fulva, nitida; capite, scutelli apice, elytrisque cæruleo-nigris; his distincte punctatis, utrisque fasciâ latâ sinuatâ communi extrorsum abbreviatâ vix ante medium positâ, maculâque ante apicem, fulvis; femoribus, thoracis punctis duobus pectoreque piceis.

Long. $2\frac{3}{4}$ lin.

Var. A. Elytris fulvis, cæruleo-nigro vario modo maculatis.

Var. B. Elytris totis obscuris cæruleis.

Var. C. Elytris fere totis fulvis.

Hab. Batchian, Ké, Ternate, Ceram.

Head finely rugose between the eyes, front and epistome nearly smooth, the latter triangular, obsoletely depressed; labrum obscure fulvous; antennæ shorter than the head and thorax, the latter three times as broad as long, transversely convex, its sur-

face smooth and impunctate, with the exception of one or two indistinct foveæ on either side near the outer border; on either side, just within the anterior margin, is a narrow groove, which extends from the outer border for about a third of the breadth of the thorax; basal lobe very slightly produced, broadly truncate; placed transversely on the centre of the disc are two piceous spots; these are frequently obsolete. Scutellum triangular, its apex obtuse. Elytra more than three times the length of the thorax; sides parallel, lateral border slightly sinuate below the shoulders; surface finely but distinctly punctured. Body beneath covered with fine adpressed pale fulvous sericeous pubescence; apical segment of abdomen in the ♀ impressed with a very deep fovea.

2. Gynandrophthalma Lacordairii, n. sp.

Subelongata, convexa, fulva, nitida, subtus pallide sericeo-tomentosa; capite (labro, epistomatis margine antico, antennarumque basi exceptis) scutelloque nigris, hoc basi pube sericeâ dense vestito, apice glabro, obscure fulvo; pectore, femoribus (basi exceptâ) tibiisque extrorsum nigro-piceis; tarsis thoracisque plagâ pallide piceis; elytris infra basin obsolete transversim impressis, obscure cæruleis, fasciâ latâ transversâ, vix ante medium positâ, flavâ.

Long. $2\frac{3}{4}$ lin.

Hab. Morty Island.

Head shining, forehead somewhat convex, smooth and impunctate; epistome indistinctly rugose, its anterior margin deeply notched, fulvous; a triangular space on either side between the eyes finely rugose and clothed with very fine adpressed silky hairs; labrum, mouth and four lower joints of antennæ fulvous. Thorax rather more than twice as broad as long; basal margin sinuate on either side, its medial lobe very slightly produced, broadly but obtusely truncate; sides rounded, scarcely narrowed in front; upper surface obsoletely impressed on either side of the disc, distinctly but finely punctured along the base; disc itself impunctate. Scutellum triangular, its apex obtuse. Elytra not broader at their base than the thorax, obsoletely dilated posteriorly, lateral border distinctly sinuate below the shoulders; upper surface slightly depressed transversely below the basilar space; the humeral callus bounded within by a depressed longitudinal line; extreme base also transversely impressed, the basal margin being retuse; surface finely punctured, the punctures

nearly obsolete towards the apex of the elytra. Anal segment of abdomen in the ♀ with a large deep fovea.

3. *Gynandrophthalma ornatula*, n. sp.

Anguste oblonga, parallela, convexa, flava, supra glabra, nitidissima, subtus pallide flavo-sericea; femoribus, tibiis apice, tarsis, abdominis plagâ apicali, capite, thoracis disci plagâ magnâ et puncto utrinque, scutello elytrisque nigris; his distincte punctatis, utrisque maculâ obliquâ prope scutellum, fasciâ latâ sinuatâ prope medium positâ, intus abbreviatâ, extus ramulum perpendiculare fere ad basin emittente, fasciâque latâ subapicali utrinque abbreviatâ, flavis.

Long. $2\frac{1}{2}$ lin.

Hab. Singapore.

Head rather longer than in the last species; a large triangular space on either side between the eyes, separating the epistome and front, finely rugose and covered with fine adpressed whitish sericeous hairs; epistome and front nearly smooth, shining, glabrous; three or four lower joints of antennæ pale fulvous beneath. Thorax nearly three times as broad as long; basal margin sinuate on either side, the medial lobe scarcely produced, obtusely rounded; sides rounded, narrowed before their middle; the upper surface smooth and shining, minutely punctured, sinuate on either side the basal lobe, and impressed with a shallow fovea just within the lateral margin; a large patch on the middle of the disc, attached by its base to the hinder margin, and extending forwards nearly to the anterior border, together with a small round spot on either side, black. Scutellum smooth, triangular, slightly rounded on the sides, its apex obtuse. Elytra not broader at their base than the thorax, indistinctly dilated posteriorly; upper surface distinctly punctured, transversely impressed at the extreme base, the basal margin being retuse. Apical segment of abdomen in the ♀ deeply impressed with a large ovate fovea.

The different pattern and the black colour of the elytra will at once distinguish this species from the two preceding.

Genus ÆTHEOMORPHA, Lac.

Mon. Phyt. ii. p. 311.

1. *Ætheomorpha Curtisii*, n. sp.

Subelongata, pallide flavo-fulva, nitida, subtus dense argenteo-sericea; antennis (basi exceptâ), oculis, pectoris lateribus ab-

dominisque basi, nigris ; elytris distincte punctatis, punctis subseriatim dispositis, ad apicem minus distinctis. (*Fœm.*)

Long. 3 lin.

Hab. Malay Archipelago.

Head short, nearly transverse; face smooth, impunctate, obsoletely wrinkled on its upper part, impressed between the eyes with three deep foveæ, placed in a triangle, the upper one less distinct than the others ; eyes large, subprominent, their inner edge slightly notched ; antennæ scarcely longer than the head and thorax, basal joint thickened, second short, slightly thickened, third short, much smaller than the second, the remaining joints compressed, triangularly dilated ; four lower joints flavous, the others black. Thorax more than twice as broad as long, sides broadly rounded at the base, thence obliquely rounded and converging to the apex, hinder angles entirely obsolete ; basal margin truncate on either side, medial lobe distinct, slightly produced, broadly truncate ; upper surface transversely convex, smooth and shining, impunctate ; immediately in front of the basal lobe and somewhat trenching on its surface is a distinct transverse groove. Scutellum large, trigonate, its extreme apex truncate. Elytra distinctly lobed at the base, sides sinuate in the middle, upper surface smooth, distinctly and somewhat deeply punctured on the anterior disc, the punctures becoming much fainter and nearly obsolete towards the apex of the elytron. Anal segment of abdomen impressed with the usual fovea.

2. *Ætheomorpha oblita,* n. sp.

Subelongata, subcylindrica, flavo-alba, nitida ; antennarum apice, elytrorum singulorum vittâ brevi obliquâ prope suturam positâ, margine apicali, plagâque subapicali margine adfixâ, fuscis ; elytris confuse punctato-striatis, striis postice fere deletis.

Long. 2 lin.

Hab. Morty Island.

Head flat, impunctate, triangularly excavated between the lower portion of the eyes ; the latter subprominent, obsoletely notched ; antennæ with their apical half nigro-fuscous ; basal joint moderately dilated, the second short, moniliform, the third nearly twice the length of the second, trigonate, the remaining joints dilated and compressed, subtrigonate. Thorax nearly three times as broad at the base as long ; sides rounded at the base, thence obliquely rounded and converging to their apex, hinder angles obsolete ; basal margin truncate on either side, medial lobe pro-

duced, broadly truncate, upper surface transversely convex, smooth and shining, impunctate. Scutellum subelongate, trigonate, its apex acute. Elytra feebly lobed at their base; upper surface finely but distinctly punctate-striate, the striæ distant, nearly regular on the inner disc, confused near the outer margin, less deeply impressed towards the apex; on each elytron is a short fuscous vitta, which occupies rather more than the middle third of its length; attached to the suture in front, it runs obliquely downwards and slightly outwards, gradually increasing in thickness posteriorly; the apical border has also a broad band of the same colour, this band being attached by its anterior extremity to a large ill-defined concolorous patch, which lies on the outer disc, some distance below its middle; near the base of the elytra are also several very faint fuscous stains. Body beneath somewhat sparingly clothed with coarse adpressed hairs. Apical segment of abdomen with a large fovea.

3. *Ætheomorpha pygidialis*, n. sp.

Elongata, subcylindrica, pallide flava, nitida; pygidio, abdominis segmento ultimo, oculis, antennisque (his basi exceptis) nigris; elytris tenuissime punctato-striatis, limbo laterali postice abrupte angustato, limboque basali circa scutellum, nigro-fuscis.

Long. $2\frac{1}{2}$ lin.

Hab. Ceram.

Face broad, flat, impunctate, impressed in the centre between the eyes with a distinct subtriangular fovea; eyes large, subprominent; antennæ about equal to the head and thorax in length, flattened, tapering towards their apex, covered with coarse hairs; basal joint thickened, second moderately thickened, short, obovate, third very short, fourth compressed, obtrigonate, fifth and following joints compressed, transverse. Thorax nearly three times as long as broad, sides rounded, converging in front, posterior angles broadly rounded, entirely obsolete, basal margin truncate on either side, medial lobe scarcely produced, broadly truncate; upper surface entirely impunctate. Scutellum large, trigonate. Elytra subparallel, sides feebly lobed at the base, upper surface smooth, impressed with minute punctures, which are arranged in distinct longitudinal rows on the inner disc, but become irregular towards the lateral margin; a narrow border surrounding the scutellum, together with the outer border of each elytron, nigro-fuscous; this latter forms a broad vitta for

the anterior two-thirds of its course, it then suddenly narrows, and is continued as a narrow line to the sutural angle. Body beneath sparingly clothed with coarse adpressed hairs. Apical segment of abdomen, together with the pygidium, black, the former impressed with a smooth shallow fovea.

Genus Damia, Lac.

Mon. Phyt. ii. p. 382.

1. *Damia canaliculata*, Lac.

Mon. Phyt. ii. p. 384.

"Flavo-nitida; pectore tarsisque piceis, abdomine testaceo; subtus sat dense albido-pubescens; prothorace lævi; elytris obsolete punctatis, humeris prominulis, margine laterali late canaliculatis.

Mas.—Sat elongatus, cylindrico-depressus; prothorace longitudine vix duplo latiore, elytris immaculatis, pedibus anticis elongatis.

Fœm.—Oblonga, prothorace minus convexo, breviore; elytro singulo nube marginali fuliginosâ, puncto humerali, maculisque duabus pone suturam (alterâ baseos, alterâ infra medium), nigris.

Var. A. Abdomine nigro." (Lacordaire.)

Hab. Java.

Genus Ceratobasis, Lac.

Mon. Phyt. ii. p. 362.

1. *Ceratobasis Nair*, Lac.

Mon. Phyt. ii. p. 363.

"Brevior, flavo-nitida, subtus sat dense argenteo-sericea; pectore, ventre, vertice, thoracisque punctis duobus nigris; hoc lævi; elytris obsolete seriatim punctulatis, singulo maculis duabus quadratis (alterâ pone basin, alterâ infra medium), nigro-cyaneis.

Long. 2 lin.

Mas.—Cylindricus, capite majori, antennarum articulo 1mo quadrato, tarsis anticis elongatis.

Fœm.—Oblongo-ovata, tarsis æqualibus.

Var. A. Oculorum orbitis nigris, vertice prothoraceque immaculatis.

Var. B. Orbitis, vertice prothoraceque ut in var. A; elytris puncto humerali maculâque infra medium nigro-cyaneis."

(Lacordaire.)

Hab. Malay Archipelago (sec. Coll. Curtis), Malabar, Coromandel, Ceylon.

The following species belonging to this family, described since the publication of M. Lacordaire's work, is unknown to me.

Clythra egregia, Boh.

Eugenies Resa, Insekter, p. 154.

"Oblongo-ovata, cylindrica, cærulea, nitida, subtus breviter albido-sericea; antennis basi, tibiis tarsisque testaceis; prothorace rufo-testaceo, antice sublævi, postice punctato, basi maculâ parvâ cæruleâ notato; elytris sat profunde, minus crebre, subseriatim punctatis, rufo-testaceis, singulo maculâ parvâ supra-humerali fasciâque mediâ sat latâ, rectâ, cæruleis.

Long. $4\frac{1}{2}$, lat. $2\frac{1}{2}$ millim.

Patria: Malacca.

Caput subrotundatum, parum convexum, cæruleum, nitidum, parce punctulatum, vertice tenuiter canaliculatum, ad oculos æneum, breviter pallido-setulosum. Palpi rufo-testacei. Oculi ovati, parum convexi, brunnei, antice inferne leviter emarginati. Antennæ breves, crassæ, nigro-fuscæ, pubescentes, articulis tribus basalibus rufo-testaceis. Prothorax longitudine fere duplo latior, apice truncatus, antice quam basi multo angustior, basi tenuiter reflexo-marginatus, utrinque sinuatus, lateribus anguste marginatis, pone apicem ultra medium rotundato-ampliatis, angulis anticis fere rectis, posticis rotundatis; superne convexus, rufo-testaceus, nitidus, dorso antico sublævis, lateribus posticeque minus crebre punctatus, ante scutellum maculâ parvâ cæruleâ notatus. Scutellum breviter triangulare, cæruleum, nitidum, basi punctulatum, medio carinatum. Elytra antice singulatim introrsum oblique truncata, prothorace vix angustiora, quam lata nonnihil longiora, humeris vix elevatis, rotundatis; apicem versus perparum angustata, apice singulatim rotundata, superne convexa, rufo-testacea, nitida, sat profunde minus crebre subseriatim punctata, singulo maculâ parvâ, rotundâ, supra-humerali fasciâque mediâ transversâ, sat latâ, rectâ, suturam non attingente, cæruleis. Corpus subtus cæruleum, subnitidum, crebre punctulatum, setulis brevibus albidis dense adspersum. Pedes punctulati, breviter setulosi; femoribus cæruleis; tibiis tarsisque testaceis, his interdum infuscatis." (Boheman.)

Fam. CHLAMYDÆ.

Sub-Fam. Chlamydeæ, Lac.

Mon. Phyt. ii. p. 636.

I have ventured to differ from M. Lacordaire in raising the *Chlamydæ* from the rank of a sub-family of the *Clythridæ* to that of a separate family. These insects appear to me to occupy a place midway between the true *Clythridæ* and the *Cryptocephalidæ*, presenting strong affinities with either group.

Agreeing with the former principally in the form of the antennæ, with the latter in the presence of a prosternum and in the entirely exposed pygidium, they differ from either in possessing prothoracic grooves for the reception of the antennæ, being allied by this last character to the *Lamprosomidæ*. The other sub-families of Lacordaire's family *Clythridæ*, with which, however, I have not to deal in the present work, ought also, in my opinion, to form separate families.

In support of the above view I may mention that M. Lacordaire himself, in his Introduction, places the genus *Chlamys* amongst the *Cryptocephalidæ*, whilst in the body of the work he makes it a sub-family of the *Clythridæ*, showing clearly the difficulty he had in determining to which of the two groups it was most closely allied.

I have not given a definition of the family *Chlamydæ*, it being sufficient to refer to the characters of the *Chlamydeæ*, as laid down by Lacordaire.

Genus Chlamys, Knoch.

Lac. Mon. Phyt. ii. p. 649.

1. *Chlamys Wallacei*, n. sp. (Pl. II. fig. 3.)

Oblonga, pallide rufo-picea, opaca; antennis fulvis, extrorsum piceis; thorace crebre et rude punctato, crebre elevato-reticulato, dorso gibboso, gibbere longitudinaliter canaliculato, punctis duobus antice, posticeque duabus plagis triangularibus ad marginem basalem adfixis, nigro-piceis; scutello obscure piceo; elytris obscure nigro-piceis, profunde rugoso-punctatis, interspatiis disci medio longitudinaliter elevatis; utrisque tuberculis nonnullis elevatis, transversim compressis, instructis; humeris elevatis; pygidio obsolete tricarinato.

Long. $2\frac{1}{2}$ lin.

Hab. Amboina.

Head closely punctured; jaws black; third and fourth joints of antennæ slender, equal. Thorax coarsely rugose-punctate, the

interspaces forming close elevated reticulations; gibbosity impressed with a broad, shallow, longitudinal groove, which, distinct at its base, is gradually lost on the anterior portion of the gibbosity. Elytra rugose-punctate, the interspaces along the middle of the disc forming four or five irregular longitudinal ridges; each elytron furnished with a number of elevated tuberosities; those on the anterior half of the disc transversely compressed, those near the apex more strongly raised and irregular in shape, their surface covered with large round reticulations: these tuberosities are placed as follows, viz. the first at the lower edge of the basilar space, half-way between the suture and humeral callus; the second about the middle of the length of the elytron, placed obliquely half-way between the first tubercle and the suture; the third on the suture itself, at some little distance below its middle; these three form an oblique line across the disc; secondly, three other tuberosities, placed respectively a little more outwardly and lower down than the three preceding, form another oblique line, parallel to the former; and, lastly, there are two or three tuberosities on the apical portion of the disc, more towards the outer angle.

2. *Chlamys Celebensis*, n. sp.

Oblonga, nigra, subnitida; antennis obscure fulvis; supra profunde et crebre foveolato-punctata, punctis singulis squamâ parvâ albâ instructis; thorace gibboso, gibbere postice declive, dorso sex-carinato; elytris ante apicem tuberculatis, utrisque disco lineis indistinctis elevatis quatuor, inter se cretis tuberculiformibus connexis, instructis; pygidio tricarinato.

Long. $1\frac{3}{4}$ lin.

Hab. Celebes.

Head closely punctured; antennæ obscure fulvous, pale piceous towards the apex. Thorax strongly gibbous, surface of gibbosity oblique posteriorly, covered with six raised lines; the middle pair parallel, not united at their base, anastomosing in front with each other and with the intermediate pair; the four others oblique, arising two on either side from the middle lines, the outer pair short. Elytra more coarsely punctured than the thorax, subparallel, slightly narrowed towards their apex; shoulders prominent; disc of each elytron furnished with four indistinct longitudinal ridges; the first rises at the base near the scutellum, runs parallel to the suture, is slightly elevated in the middle of its course, and terminates at a short distance below the middle of the disc in a strongly raised, transversely compressed tubero-

sity; the second commencing at a tubercle on the basal margin, halfway between the suture and humeral callus, runs nearly parallel to the first, and ends abruptly at its apical tuberosity; the third, arising from the humeral callus, runs obliquely inwards to join (by means of a strongly raised transverse tuberosity) the second ridge at its middle; from this point a longitudinal branch runs downwards parallel to the remaining portion of the second ridge, and joins a tubercle at the commencement of the apical portion of the disc; the fourth ridge, parallel to the outer margin, is united about its middle to a transverse tuberosity on the outer disc; and on the apical region are five or six strongly raised, irregular tuberosities.

Genus Exema, Lac.

Mon. Phyt. ii. p. 844.

1. *Exema Malayana*, n. sp.

Oblongo-elongata, nigra, subopaca, crebre et profunde rugoso-punctata; thorace dorso gibboso, supra sex-carinato, crebre elevato-reticulato; elytris utroque disco lineis tribus indistincte elevatis tuberculisque nonnullis ante apicem instructis; pygidio tricarinato.

Long. $1\frac{1}{3}$ lin.

Hab. Malacca (Mount Ophir), Makassar, Flores.

Head closely punctured, the interspaces forming raised reticulations over the surface. Thorax strongly gibbose, the gibbosity narrowed posteriorly into an acute angle, its surface covered with six raised carinæ; the middle pair parallel, confluent at their base, produced anteriorly to a short distance within the apical border of the thorax; the four others arise two on either side from the central pair, and run obliquely outwards and forwards down the sides of the gibbosity; whole surface of thorax closely punctured, and covered in front with more or less distinct raised reticulations. Elytra parallel, more coarsely and deeply punctured than the thorax, the disc of each furnished with three indistinctly-raised lines; the first of these commences a short distance below the base, near the scutellum, and, running nearly parallel to the suture, terminates a short distance below the middle of the latter; the second, tuberculate at its base, commences at the basal margin, halfway between the suture and humeral callus, runs nearly parallel to the first, and ends by uniting with its apex by means of a short transverse ridge; the third, arising from the humeral callus, runs obliquely inwards to join the second at about the middle of its course, a short ridge connecting the

two; from this point it is prolonged downwards nearly parallel to the latter half of the second line, and becomes gradually lost on the surface of the disc; in addition to these raised lines, each elytron is furnished with five large tubercles, one placed near the outer margin just below its middle, the others on the subapical space.

Genus Hymetes, Lac.
Mon. Phyt. ii. p. 861.

1. *Hymetes Javana*, Lac.
Mon. Phyt. ii. p. 862.

" Quadrato-elongata, læte rufo-cinnamomea; prothorace lateribus reticulato-rugoso, ferrugineo-maculato, elevato-gibboso, gibbere subgloboso, postice compresso, reticulato, dorso vage canaliculato ac utrinque tricarinato; elytris punctatis, singulo lineis elevatis quatuor in tubercula abeuntibus ac inter se connexis, tuberculisque paucis, instructo." (Lacordaire.)

Long. $2\frac{3}{4}$ lin.
Hab. Java.

Fam. CRYPTOCEPHALIDÆ, Suffr.

Genus Bucharis, n. g.

Corpus subquadrato-rotundatum aut ovatum, postice attenuatum, valde convexum. *Caput* breve; *oculis* distantibus, intus emarginatis; *antennis* corporis dimidio brevioribus, articulis 5 vel 6 ultimis compressis at paullo dilatatis. *Thorax* convexus, basi utrinque leviter bisinuatus, baseos medio in lobum trigonatum, apice integrum, in basin scutelli receptum, postice productus, lateribus rotundato-angustatis. (Tab. III. fig. 6.) *Scutellum* parvum, non elevatum, planum, intra margines elytrorum receptum, basi emarginatâ. *Elytra* convexa, lævia, regulariter punctato-striata. *Pedes* mediocres; *unguiculis* appendiculatis. *Prosternum* longitudine paullo latius, planum, antice vix productum, postice concavo-emarginatum aut truncatum.

I have founded the present genus for the reception of two new species of *Cryptocephalidæ*, collected by Mr. Wallace. In form of thorax it agrees with *Prasonotus* and *Ditropidus*, differing, however, in having the apex of its basal lobe entire and received into

the base of the scutellum instead of itself receiving the latter, as in the two above-named genera; from *Cœnobius* and *Achænops*, both which genera have the apex of the basal lobe of the thorax received into the base of the scutellum, and have subincrassate antennæ, it is separated in the first case by the distant eyes, in the other by the form of the hinder margin of the prosternum and by its notched eyes; from *Cryptocephalus* proper it may be readily distinguished by the small horizontal scutellum, the surface of which is entirely received between the margins of the elytra, its apex not being raised in the slightest degree above their level.

1. *Bucharis Suffriani*, n. sp. (Pl. III. fig. 8.)

Subquadrato-ovatus, postice paullo angustatus, apice truncatus, convexus, cæruleus aut viridi-cæruleus, nitidus, subtus piceus; labro, antennis, palpis, pedibus, abdomine elytrorumque apice rufo-fulvis.

Long $1\frac{1}{2}$—2 lin.

Hab. New Guinea (Dory), Mysol.

Face deeply but not very closely punctured, front longitudinally grooved; epistome and adjoining portion of face transversely wrinkled; whole surface somewhat sparingly covered with fine hairs; jaws nigro-piceous. Thorax twice as broad at the base as long, sides converging and slightly rounded from base to apex, hinder angles acute; hinder margin obsoletely bisinuate on either side, the basal lobe strongly produced, triangular, its apex entire, received into a notch on the basal and upper surfaces of the scutellum, which it slightly overlaps; upper surface very convex, smooth and shining, minutely but not very closely punctured. Scutellum small, narrow, not prominent, being level with the adjoining surface of the elytra, its apex subacute. Elytra not broader at their base than the thorax, slightly narrowed posteriorly, sides distinctly lobed at their base; upper surface smooth and shining, convex, obliquely deflexed from just before their middle to immediately before their apex, impressed just above the lateral lobe with a large shallow fovea, humeral callus slightly prominent; each elytron impressed with eleven longitudinal rows of distinct but fine punctures; these rows, which run parallel to the margin on the outer disc, are somewhat oblique and converge to the suture on the inner half of the surface; the punctures, which are placed in a single regular line on each row, are larger and more deeply impressed towards the apex of the elytron; interspaces obso-

letely convex, finely but very distantly punctured, rather more distinctly raised on the outer disc and towards the apex of the elytron; apical margin rufo-fulvous. Pygidium finely and closely punctured, covered with coarse concolorous hairs. Prosternum broader than long, its hinder border concave, posterior angles produced into distinct teeth.

2. *Bucharis fulvipes*, n. sp.

Anguste ovatus, postice attenuatus, piceus, subtus pallide rufo-piceus, nitidus; antennis basi pedibusque fulvis, illis extrorsum fuscis; thorace remote sed distincte punctato; elytris tenuiter punctato-striatis, interspatiis lævibus, iis ad latera convexiusculis.

Long. 1 lin.

Hab. Morty Island.

Head short, smooth; epistome triangular, rounded on the sides; eyes large, not prominent, their inner edge deeply notched; antennæ with the first joint slightly thickened, second rather more than a third the length of the first, ovate, the three following joints each about equal in length to the second, slender, the first of these filiform, the two others slightly but indistinctly obconic, sixth and four following compressed and triangularly dilated, forming a slender loosely articulated club (the eleventh joint wanting). Thorax twice as broad at the base as long; sides regularly rounded and converging from base to apex, basal margin truncate on either side, medial lobe strongly produced, triangular, its apex entire, received into the base of the scutellum; upper surface very convex, subcylindrical in front, smooth and nitidous, impressed with round but very shallow punctures, which are much less distinct on the anterior disc; colour obscure piceous on the middle of the disc, rufo-piceous on the sides. Scutellum narrow, elongate, its apex very acute. Elytra moderately lobed at the base, very convex, slightly narrowed posteriorly; each elytron impressed with eleven longitudinal rows of very fine punctures; interspaces smooth, plane, impunctate, those on the outer disc slightly but distinctly convex, the general colour obscure piceous like the thorax; their apex, together with an ill-defined patch on the middle of the disc, rufo-piceous; beneath pale rufo- or fulvo-piceous. Prosternum broader than long, its hinder border truncate, hinder angles obtuse.

Genus Dioryctus, Suffr.

Linn. Entom. xiv. p. 3.

1. *Dioryctus grandis*, n. sp. (Pl. II. fig. 5.)

Crassus, breviter subquadrato-oblongus, valde convexus, fulvus, nitidus; antennis extrorsum, labro, mandibulis, elytrorumque margine basali tenui nigris; thorace lævi, subremote tenuiter punctato, margine basali utrinque obliquo, distincte bisinuato, lobo basali angulato-producto; elytris lævibus, subfortiter punctato-striatis, interspatiis planis, ad apicem obsolete convexiusculis, lateribus ante medium valde angulato-lobatis, callo humerali vix prominulo.

Long. $2\frac{3}{4}$—3 lin.

Hab. Sumatra, Penang.

Body strongly convex, semiglobose when viewed laterally. Head coarsely punctured, forehead impressed with a triangular fovea, the middle of which is longitudinally grooved; eyes long, narrow, their inner edge deeply sinuate; antennæ rather shorter than the head and thorax, six outer joints slightly dilated, black. Thorax more than twice as broad across its base as long, sides quickly narrowed and rounded from base to apex; hinder angles acute, produced posteriorly; basal margin bisinuate on either side, medial lobe strongly produced, angular, entirely concealing the scutellum from above; upper surface smooth, finely punctured, curving rapidly downwards from base to apex. Elytra convex, slightly narrowed towards their apex, sides angularly lobed in front, surface smooth and nitidous; each elytron impressed with eleven rows of distinct pale piceous punctures: interspaces plane, obsoletely convex on the sides and apex; the extreme basal margin, together with the hinder border of the thorax, narrowly edged with black. Pygidium coarsely punctured. Prosternum strongly tricarinate, its anterior margin produced into a deflexed angular lobe. Anal segment of abdomen in the ♀ impressed with a large deep fovea.

Genus Melixanthus, Suffr.

Linn. Entom. ix. p. 8.

1. *Melixanthus intermedius*, Suffr.

Linn. Entom. ix. p. 10.

Elongatus, subcylindricus, postice paullo angustatus, fulvus, nitidus; antennis extrorsum nigris; elytrorum disco nigro-

fusco; elytris regulariter punctato-striatis, interspatiis tenuissime impresso-strigosis.

Long. $1\frac{3}{4}$ lin.

Hab. Borneo, Celebes.

2. *Melixanthus coctus*, n. sp. (Suffr. ined.)

Oblongus, subcylindricus, postice vix attenuatus, fulvus, nitidus; mandibulis, antennis extrorsum, oculisque nigris; elytris tenuiter punctato-striatis, interspatiis planis, tenuissime strigosis.

Long. $1\frac{3}{4}$ lin.

Hab. Borneo, Flores.

Head short, flat, longitudinally excavated on the upper portion of the face, surface obsoletely wrinkled; eyes elongate, nearly plane, their inner edge broadly emarginate; antennæ with the five upper joints black, dilated and compressed, forming an ill-defined club. Thorax about twice as broad at the base as long; sides rounded and converging from base to apex, hinder angles produced slightly backwards, acute; basal margin distinctly sinuate and concave on either side, produced obliquely backwards as it approaches the medial lobe; this latter broadly truncate, its border broadly emarginate to receive the base of the scutellum; upper surface very convex, more especially in front, whole surface covered (but not very closely) with shallow punctures, visible only under a lens; the extreme basal margin, together with the base of the scutellum, narrowly edged with black. Scutellum moderate in size, subcordate, its basal margin being deeply notched. Elytra convex, gradually narrowed from their base towards their apex, sides very slightly lobed at the base; surface plane, not thickened near the scutellum, closely covered with very minute impressed strigæ, visible only under a lens; on each elytron are eleven rows of regularly placed fine punctures, which become much less distinct and nearly obsolete towards the apex. Pygidium closely punctured.

3. *Melixanthus? bimaculicollis*, n. sp. (Pl. III. fig. 1.)

Oblongus, convexus, postice vix attenuatus, flavo-fulvus, nitidus; ore, vertice, pleuris, thoracis maculis duabus, scutello, elytrisque nigris; his regulariter punctato-striatis, striis ad apicem fere deletis, interspatiis planis, singulatim fasciâ

latâ, utrinque abbreviatâ, prope medium positâ, fulvâ; tibiarum apice tarsisque nigro-piceis.

Long. $1\frac{1}{2}$ lin.

Hab. Penang.

Head flat, labrum piceous, vertex smooth, nearly impunctate, black, the black colour extending downwards along the inner border of the eyes as far as the insertion of the antennæ; eyes elongate, broadly but not very deeply notched; first joint of antennæ incrassate, second short, ovate, third rather longer than the second, cylindrical; (in the single specimen before me, the remaining joints are unfortunately wanting). Thorax nearly twice as broad as long; sides very obliquely rounded and converging from base to apex, hinder angles produced backwards, acute; basal margin moderately concave on either side, medial lobe scarcely produced, its apex broadly truncate, excavated to receive the base of the scutellum; above very convex in front, transversely depresssd on either side just in front of the basal lobe; subcylindrical at the anterior margin; surface smooth, impunctate, the extreme basal and apical borders nigro-piceous, two large subquadrate patches, placed transversely on the middle of the disc, black. Scutellum subcordate, its apex obtuse, basal margin deeply notched. Elytra feebly lobed at the base, slightly thickened around the scutellum; each elytron with eleven rows of distinct punctures, which become nearly obsolete towards their apex, interspaces plane, impressed each with an irregular row of very minute punctures; the broad yellow band is abbreviated near the suture, and on the extreme lateral margin. Body beneath sparingly clothed with very fine pubescence. Anal segment of abdomen with a large concave fovea. Pygidium finely but not closely punctured.

In the only specimen that I have seen of this species both antennæ are almost entirely wanting; I cannot, therefore, with certainty refer it to *Melixanthus;* in habit and in the form of the prosternum it agrees with the other species of the genus.

Genus Cadmus, Erichs.

Suffr. Linn. Entom. xiii. p. 48.

1. *Cadmus Chlamyoides*, n. sp. (Pl. III. fig. 5.)

Oblongus, convexus, subcylindricus, fuscus, subnitidus; antennis extrorsum elytrorumque margine basali nigris; pectore, capite thoraceque crebre punctatis, pallide piceis, hoc modice gibboso,

medio longitudinaliter sulcato, pilis cinereis adpressis sat densè vestito; scutello trigonato, lævi, flavo; elytris irreguliter elevatis et depressis, fortiter sed inordinatim punctatis, pallide rufo-piceis, flavo-variegatis, vittis nonnullis longitudinalibus elevatis, hic illic inter se confluentibus, instructis.

Long. 2 lin.

Hab. Morty Island.

Head deeply buried in the thorax, closely punctured, face broad, concave, impressed with a faint longitudinal groove; epistome semilunate; labrum smooth, flavous; antennæ flavous, scarcely longer than the head and thorax, subfiliform, their outer half black; eyes nearly black, slightly prominent, subreniform. Thorax nearly twice as broad at the base as long, sides narrowly margined, narrowed and rounded from base to apex, their outer edge coarsely but indistinctly crenulate; hinder angles acute, not produced; basal margin moderately oblique and obsoletely sinuate on either side, its medial lobe short, broadly truncate, the apex slightly concave; upper surface distinctly gibbous, closely punctured, the puncturing finer on the disc, rather coarser on the sides; medial line impressed with a narrow groove, which, commencing at the base, runs forward to the anterior margin. Scutellum trigonate, the anterior margin notched, its surface oblique, smooth, flavous, sparingly covered with adpressed hairs, front edge black; extreme apex obtuse, scarcely free. Elytra scarcely broader than the thorax, sides nearly parallel, moderately lobed in front; upper surface convex, with alternate depressions and elevations; slightly thickened immediately round the suture; humeral callus moderately thickened; surface somewhat flattened below the basilar space, then transversely excavated just before the middle of the elytron, the outer disc close to its apex raised into a broad obtuse callosity; general surface moderately but coarsely punctured, interspaces thickened and forming broad irregularly raised longitudinal vittæ, which are more or less interrupted and anastomose here and there with each other; their surface is for the most part smooth and free from punctures; the ground colour of the elytra is pale rufo-piceous, with their extreme basal margin black; some irregular patches on the surface and some of the raised vittæ themselves are pale whitish yellow. Apical segment of abdomen with a large deeply excavated fovea.

2. *Cadmus squamulosus*, n. sp. (Pl. III. fig. 2.)

Breviter oblongus, fulvo-fuscus, subnitidus, squamulis linearibus

aureis sat dense vestitus; thorace modice gibboso; elytris tuberculatis; antennis (basi exceptâ) nigris.

Long. 1½ lin.

Hab. Batchian.

Whole body clothed with long linear adpressed scales; head flat, somewhat closely punctured; eyes subconvex, reniform, their inner edge angularly notched; antennæ rather longer than half the body, subfiliform, basal joint thickened, second short, ovate, slightly thickened, third, fourth and fifth slender, equal, each about twice the length of the second; following joints slightly thickened and compressed. Thorax more than twice as broad as long; sides rounded and converging from base to apex; basal margin slightly sinuate on either side, medial lobe very moderately produced, broadly truncate, its edge slightly concave; upper surface subcylindrical in front, transversely gibbose on the disc, the extreme edge of basal border black. Scutellum elongate-trigonate, thickened, its apex obtuse, basal border emarginate in the middle, overlapping the edge of the medial lobe of the thorax. Elytra moderately lobed at the base, convex, thickened and elevated below the apex of the scutellum; surface finely but not closely punctured; scattered here and there over each elytron are a number of slightly raised nearly circular callosities; one oblong, larger than the rest, is placed halfway between the humeral callus and scutellum; humeral callus itself not prominent.

3. *Cadmus submetallescens*, n. sp. (Pl. III. fig. 9.)

Breviter oblongo-ovatus, valde convexus, obscure æneo-niger, subnitidus; antennis pedibusque rufo-fulvis, illis apice, femoribus (basi exceptâ) tibiisque extus nigro-piceis; thorace subgibboso, punctis linearibus dense impresso; elytris sulcato-striatis, interspatiis elevatis, convexis, hic illic tuberculatis.

Long. 1¼ lin.

Hab. Ternate.

Head flat, closely punctured; eyes oblong, their inner edge with a deep oblique angular notch; antennæ rather longer than the head and thorax, subfiliform, basal joint long, incrassate, second short, ovate, slightly thickened; third, fourth and fifth nearly equal, subcylindrical, each about two-thirds longer than the second; the rest slightly thickened and compressed, forming an indistinct club; six lower joints fulvous, the remainder black. Thorax about twice as broad at the base as long; sides rounded at their extreme base, thence very obliquely converging to

their apex, anterior angles acute; basal margin very slightly oblique and obsoletely bisinuate on either side, medial lobe scarcely distinct, broadly truncate; upper surface subcylindrical in front, distinctly gibbose in the centre of the disc, obliquely depressed at the base on either side just behind the gibbosity; whole surface closely covered with short linear impressions; in addition to these, placed transversely across the middle of the disc, are a few small ill-defined tuberosities, visible only under a lens. Scutellum large, triangular, its apex obtuse, surface smooth, the medial line with an indistinct longitudinal ridge. Elytra scarcely broader than the thorax, very slightly narrowed towards their apex, dehiscent at their sutural angle; sides angularly lobed at their base; upper surface convex, thickened and subtuberculate just below the apex of the scutellum; each elytron with ten sulcate striæ, each of which is impressed with a single row of fine punctures; the striæ run parallel to the lateral border on the outer disc, but on the inner disc they are oblique and curve inwardly towards the suture; interspaces broad, thickened and convex, costate at the base, and on the outer disc raised here and there into oblong callosities, those placed on the apical portion of the elytron being much stronger and more prominent than those on the middle disc. Pygidium closely punctured. Prosternum broader than long, its hinder margin truncate. The whole upper surface of the body in this interesting species is covered with very minute punctures, from which cause the body appears nitidous or the reverse, according to the light in which it is viewed.

Genus Cryptocephalus, Geoff.

Suffr. Linn. Entom. ii. p. 13.

1. *Cryptocephalus colon*, Suffr. (Pl. II. fig. 1.)

Linn. Entom. ix. p. 19.

Subquadrato-oblongus, postice attenuatus, valde convexus, pallide flavo-fulvus, nitidus; mandibulis, oculis, antennis (his basi exceptis) scutelloque nigris; elytris læte flavis, regulariter punctato-striatis, interspatiis planis; singulatim limbo maculisque subrotundatis duabus, alterâ supra callum humerale, alterâ pone medium disci medio positâ, nigris.

Long. $2\frac{1}{2}$ lin.

Hab. Tringanee, Siam.

This pretty species has been sent from Tringanee by Count Castelnau.

2. *Cryptocephalus tetrastigma*, Suffr.

Linn. Entom. ix. p. 21.

Pallide flavus, nitidus; elytris punctato-striatis, interspatiis lævibus, nitidis; margine basali et utrisque punctis duobus, 1-1 dispositis, nigris.

Long. 2 lin.

Hab. Java.

3. *Cryptocephalus Billardierii*, Fabr.

Suffr. Linn. Entom. ix. p. 40.

Brevis, rufus, pectore obscurior; abdomine et thoracis vittis duabus obliquis antice abbreviatis nigris; elytris tenuiter punctato-striatis, interspatiis tenuissime punctatis; vittâ suturali antice bifurcatâ et singulatim lineâ discoidali, postice abbreviatâ, nigris.

Long. $1\frac{1}{6}$ lin.

Hab. Java (Suffrian); New Holland (Oliv.); New Cumberland (Coll. Fabr.).

This species, which I have not seen, is placed by Suffrian in the same section of the genus as *C. Herbstii*. Suffrian speaks of the apex of the antennæ as fuscous; Olivier says that it is black.

4. *Cryptocephalus lævissimus*, Suffr.

Linn. Entom. xiv. p. 18.

Rufus, nitidus; thoracis impunctati margine basali elytrorumque puncto humerali nigris; pectore tarsisque nigro-fuscis; elytris tenuiter punctato-striatis, interspatiis planis.

Long. $1\frac{3}{4}$ lin.

Hab. Manilla.

5. *Cryptocephalus pilularius*, Suffr.

Linn. Entom. ix. p. 45.

Subtus niger; pedibus rufis, supra obscure rufis; antennis extrorsum, thoracis plagâ transversâ, scutello, elytrorumque suturâ et singulatim punctis duobus (1-1 positis) nigris.

Long. $1\frac{1}{3}$ lin.

Hab. Java.

This species, according to Suffrian, is closely allied to *C. Billardierii*.

6. *Cryptocephalus cinnabarinus*, Suffr.
Linn. Entom. ix. p. 70.

Oblongus, convexus, flavo-fulvus, nitidus; mandibulis, pectore abdomineque nigris; femoribus intermediis extus ad apicem, posticis extus et ad apicem nigro-piceis, tibiis posticis fuscis; antennis gracilibus, flavis; thorace valde convexo, baseos medio utrinque impresso, nitidissimo, fere impunctato, margine basali anguste nigro; elytris basi anguste nigro-marginatis, tenuiter sed regulariter punctato-striatis, punctis piceis, interspatiis planis, impunctatis. (*Mas.*)

Fœm.—Femoribus intermediis apice leviter infuscatis, tibiis posticis flavo-fulvis; pygidio obscure flavo-maculato, abdominis segmento anali foveâ magnâ ovali impresso.

Long. ♂ 3, ♀ $3\frac{2}{3}$ lin.

Hab. Sumatra, Pulo Penang, Celebes; also India? (sec. spec. in Mus. Berol., Suffr.).

7. *Cryptocephalus apicipennis*, n. sp.

Oblongus, convexus, fulvus, nitidus; antennis gracilibus, flavis; mandibulis, pectore abdomineque nigris; femoribus anticis apice, posterioribus quatuor fere totis, nigro-piceis; tibiis intermediis extus, posticisque totis nigro-piceis; thorace valde convexo, baseos medio utrinque impresso, disco nitidissimo, fere impunctato, basi anguste nigro; elytris regulariter sed tenuiter punctato-striatis, punctis piceis; interspatiis planis, impunctatis; margine basali angusto, apiceque nigris.

Fœm.—Abdominis segmento anali foveâ magnâ subovali impresso.

Long. $3\frac{1}{4}$ lin.

Hab. Penang. Collected by Mr. Lamb.

Head short, broad; epistome transverse, triangular, separated from the face by a broad deep groove; anterior margin slightly concave; forehead flat, impunctate; eyes elongate, their inner edge deeply notched; antennæ three-fourths the length of the body, filiform, second joint short, third more than twice as long as the second, the fourth still longer, the remaining joints nearly equal to the fourth; three lower joints nearly glabrous, the others covered with adpressed concolorous hairs. Thorax nearly twice as broad at the base as long; sides rounded and converging from base to apex, the hinder angles incurved, produced slightly backwards; hinder border somewhat oblique and very slightly sinuate on either side; the medial lobe slightly produced, its margin con-

cave, upper surface very convex, subglobular in front, smooth and shining, very fine punctures placed at distant intervals being visible only under a lens; at the base on either side, just in front of the medial lobe, is a somewhat oblique large shallow fovea; the extreme edge of the basal margin black. Scutellum forming an elongated triangle, its apex obtuse, basal margin notched in the middle, edged with black. Elytra parallel, slightly lobed at the base; upper surface convex, thickened round the suture, smooth and shining, finely and regularly punctate-striate; the punctures small, piceous; interspaces smooth, plane; on each elytron are placed eleven of these rows, the first being short.

8. *Cryptocephalus annulipes*, n. sp. (Suffr. ined.)

Oblongus, subcylindricus, læte flavo-fulvus, nitidus; mandibulis, oculis, antennis (articulo basali excepto), thoracis elytrorumque marginibus basalibus, genubus, tibiarum apice tarsisque nigris; elytris regulariter punctato-striatis, striis ad apicem fere deletis; interspatiis ante medium obsolete transversim rugulosis.

Long. 2 lin.

Hab. Borneo.

Head rotundate, face flat, front with a slight longitudinal impression; epistome trigonate; eyes long, black, their inner edge broadly notched; antennæ filiform, nearly equal to the body in length; first joint incrassate; second short, ovate; third and fourth equal, each twice the length of the second; fifth and following joints also equal, slightly compressed and also dilated, each rather longer than the fourth. Thorax about twice as broad at the base as long; sides moderately rounded and obliquely converging from base to apex, hinder angles produced slightly backwards; basal margin truncate, its medial lobe not produced; above very convex, subcylindrical in front, surface smooth and shining, entirely free from punctures or impressions of any kind; the extreme basal margin narrowly edged with black. Scutellum trigonate, its apex rounded. Elytra convex, sides moderately lobed at the base, not narrowed posteriorly; upper surface slightly thickened in the neighbourhood of the scutellum; humeral callus obtuse, slightly prominent; each elytron with eleven rows of regularly placed punctures, which nearly disappear towards the apex; interspaces smooth, raised into faint transverse rugæ on the anterior disc, plane over the rest of the surface; on each interspace is an irregular row of very minute punctures.

9. *Cryptocephalus octospilotus*, n. sp.

Oblongo-elongatus, parallelus, subcylindricus, fulvus, nitidus; elytris regulariter punctato-striatis, margine basali et singulatim punctis quatuor, 2-2 positis, nigris.

Long. 2 lin.

Hab. Tringanee.

Head rotundate, flat; antennæ filiform, basal joint moderately thickened, second very short, moniliform, third and fourth equal, each twice the length of the second, four following joints equal, each rather longer than the fourth, slightly compressed (the rest wanting); mandibles and eyes black, the latter elongate, their inner edge deeply notched. Thorax not quite twice as broad as long; sides rounded and converging from base to apex, hinder angles acute, slightly incurved, produced slightly backwards; basal margin obsoletely bisinuate on either side, medial lobe scarcely produced, its apex broadly truncate; upper surface convex, subcylindrical in front, smooth, impunctate. Scutellum trigonate, its apex truncate. Elytra moderately lobed at the base, not thickened in the neighbourhood of the scutellum; each elytron with eleven regular rows of punctures, the punctures deeply impressed in front, smaller and less distinct towards the apex, pale piceous; interspaces plane, obsoletely convex on the outer disc; the extreme basal border, together with the basal margin of the scutellum, and four spots on each elytron, black; these spots, which are subrotundate, are placed as follows, viz., two just below the basal margin, one on the humeral callus, the other half-way between the callus and the suture, and two just below the middle of the elytron, the outer one, larger than the others, in the middle of the outer disc, the other small, in the centre of the inner disc. Pygidium somewhat closely punctured, its hinder border semicircular. Body beneath sparingly clothed with very short æneo-sericeous hairs. Anal segment of abdomen impressed with a large, deep, transversely ovate fovea.

10. *Cryptocephalus suspectus*, n. sp. (Suffr. ined.) (Pl. III. fig. 4.)

Elongatus, angustatus, parallelus, subcylindricus, fulvus, nitidus; thoracis margine basali, scutello, pectore, abdomineque nigris; abdominis margine apicali, pygidio (basi exceptâ) pedibusque flavis.

Long. $2\frac{1}{2}$—3 lin.

Hab. Borneo (Sarawak), Tringanee; collected in the latter locality by Mr. Lamb.

Head semicircular, flat, front impressed with a longitudinal groove; jaws and eyes black, the latter large, flat, their inner edge deeply notched; antennæ three-fourths the length of the body, very slender, filiform; basal joint moderately thickened, second short, ovate, third about one-half longer than the second, fourth and three following nearly equal, each about one-half longer than the third, eighth and following joints gradually diminishing in length. Thorax twice as broad at the base as long; sides obliquely deflexed from base to apex, nearly parallel at their base, rounded and converging in front; basal margin slightly concave on either side; medial lobe not produced, its margin concave, emarginate; above very convex, almost gibbose in front, smooth aud shining, impunctate; on either side, just in front of the base, is a broad obliquely transverse depression, which, extending from the medial line nearly to the middle of the lateral margin, renders the convexity of the anterior disc very apparent. Scutellum narrowly trigonate, shining black, its apex subacute. Elytra nearly three times the length of the thorax, parallel, sides moderately lobed at their base, not thickened in the region of the scutellum, the humeral callus moderately prominent; each elytron with eleven rows of regularly-placed, deep, but not very large punctures, which become smaller towards the apex; interspaces plane, very slightly convex on the outer disc. Body beneath sparingly clothed with concolorous adpressed hairs. Anal segment of abdomen in the ♀ with a large deep round fovea. Prosternum longer than broad, its hinder extremity produced into two very obtuse teeth.

11. *Cryptocephalus Wallacei*, n. sp. (Pl. III. fig. 3.)

Elongatus, subcylindricus, postice paullo attenuatus, flavus, nitidus, supra piceo-irroratus; antennarum apice infuscato; elytris rude punctato-striatis, punctis in striis confuse gemellato-dispositis, interspatiis irregulariter elevato-reticulatis; scutello quadrato.

Long. $2\frac{1}{2}$ lin.

Hab. Timor.

Head flat, coarsely rugose-punctate; eyes large, flat, their inner edge deeply notched; antennæ slender, filiform, joints cylindrical, third and fourth joints equal, each three times the length of the second, fifth still longer, remaining joints nearly equal to the fifth. Thorax about twice as broad at the base as long; sides rounded and converging from base to apex, hinder

angles produced distinctly backwards, anterior angles produced into an acute tooth; basal margin subsinuate, on either side slightly oblique near the medial lobe, the latter very slightly produced, its apex broadly truncate; above transversely convex, strongly impressed with large deep punctures; the piceous colour (in the unique specimen before me) covers nearly the whole surface, leaving only the outer limb and a few small markings on the front and sides flavous. Scutellum transversely quadrate, its sides sinuate, its apex broadly truncate, the basal margin, together with those of the thorax and elytra, narrowly edged with black. Elytra distinctly narrowed from their base towards the apex, sides moderately lobed at their base; upper surface thickened near the scutellum, deeply impressed with numerous large round punctures, which, placed without order on the anterior disc, form irregular longitudinal rows towards the apex of the elytron; interspaces thickened, transversely rugulose in front and on the sides, costate on the hinder disc; the surface of the disc is almost entirely piceous, the suture and a few smooth irregular slightly raised scattered patches being flavous.

12. *Cryptocephalus discrepans*, n. sp.

Elongatus, subcylindricus, parallelus, subtus cum pygidio fulvus, abdominis basi pectoreque rufo-piceis; supra piceus, ore obscure fulvo; thorace rude punctato, ad latera rugoso, ante basin utrinque oblique depresso, postice et lateribus obscure rufo-fulvis; elytris profunde irregulariter punctato-striatis, interspatiis incrassatis, elevato-reticulatis, apicem versus costatis; antennis pallide rufo-piceis, extrorsum nigris.

Long. $1\frac{2}{3}$ lin.

Hab. Morty Island.

Head coarsely rugose-punctate; eyes reniform, their inner edge deeply notched; antennæ slender, filiform, basal joint thickened, second moderately thickened, short, ovate, third slender, filiform, three times the length of the second, fourth equal in length to the third; basal joint fulvous, the two following rufo-piceous, the next two black (the others wanting). Thorax twice as broad at the base as long; sides rounded, slightly converging in front, the lateral border reflexed; basal margin broadly concave on either side, slightly produced near the medial lobe, the latter broadly truncate, its margin slightly excavated to receive the base of the scutellum; upper surface very convex and obsoletely

gibbous on the disc in front, obliquely depressed on either side near the base; impressed with large deep punctures, which, more distant on the middle of the disc, become closely crowded towards the sides, which are rugose-punctate; base and sides pale rufo-piceous, reflexed lateral margin fulvous. Scutellum subelongate-trigonate, its apex broadly truncate. Elytra strongly lobed at their base, the sides being strongly retrenched behind the dilated portion; this causes the elytra to resemble in shape those of the genus *Aspidolopha;* upper surface slightly thickened near the scutellum, deeply impressed with large punctures, which are irregularly arranged in longitudinal rows; interspaces thickened transversely, crenulate on the inner disc in front, longitudinally costate towards the apex of the elytron. Pygidium with its apical border concave. Anal segment of abdomen with an unusually large round fovea. Legs slender. Prosternum broader than long, its hinder margin truncate.

This insect is entirely Australian in form, closely resembling several Australian species both in habit and the shape of its prosternum.

13. *Cryptocephalus dapsilis,* Boh.

Eugenies Resa, Insekter, p. 155.

"Breviter ovatus, convexus, subtus niger; capite, antennis, apice excepto, tibiis tarsisque lutescentibus; prothorace subtiliter punctulato, margine apicali anguste, laterali et basali latius luteo, dorso antico plaga magna transversa maculisque duabus basalibus triangularibus nigris; elytris luteis, tenuiter punctato-striatis, interstitiis subtilissime crebre punctulatis, sutura vittaque sat lata disci nonnihil obliqua, ante apicem abbreviatis, nigris.

Long. 4—lat. $2\frac{1}{4}$ millim.

Patria: Java.

Statura omnino *C. Billardierii*, nonnihil major, prothorace aliter colorato. Caput rotundatum, parum convexum, luteum, nitidum, distincte sat crebre punctulatum, postice tenuiter longitudinaliter canaliculatum; ore nigro. Palpi ferruginei. Oculi reniformes, parum convexi, nigri. Antennæ flavo-testaceæ, extrorsum fuscescentes. Prothorax longitudine fere duplo latior, antice quam basi multo angustior, apice leviter rotundato-emarginatus, tenuiter marginatus, basi utrinque sinuatus, lateribus anguste reflexo-marginatis, pone apicem subito rotundato-ampliatis, angulis anticis deflexis, obtusis, posticis retrorsum productis, acuminatis; superne

TRANSACTIONS

OF THE

ENTOMOLOGICAL SOCIETY

OF

LONDON.

I. Phytophaga Malayana; *a Revision of the Phytophagous Beetles of the Malay Archipelago, with Descriptions of the New Species collected by* Mr. A. R. Wallace. By Joseph S. Baly, F.L.S., M.R.C.S.

SECTION I.

APOSTASICERA:

INCLUDING

The Families Sagridæ, Donaciidæ, Criocerida, Megalopidæ, Clythridæ, Chlamydæ, Cryptocephalidæ, Eumolpidæ, and Chrysomelidæ.

[It was intended that Mr. Baly's Revision of the Malayan *Phytophaga* should be published in a continuous form, so that the whole might eventually be bound up together, as a companion volume to the *Longicornia Malayana* of Mr. Pascoe. The first 76 pages were issued in June, 1865, and it was then announced

that Mr. Baly's Introductory Remarks on the Group were reserved until the Species were described. The delay in obtaining from the Author a second instalment of descriptions has compelled the Council to abandon the idea of devoting an entire volume of the "Transactions" to this special work.—*Sec. Ent. Soc.*, August, 1867.]

convexus, subtiliter sat crebre punctulatus, nitidus, margine apicali anguste, laterali et postico latius luteus, dorso plaga magna, subovata, transversa maculisque duabus parvis, remotis, basalibus, subtriangularibus, nigris. Scutellum nigrum, sublæve. Elytra antice singulatim nonnihil rotundato-producta, prothorace vix latiora, quam lata paullo longiora, callo supra-humerali parum elevato, obtuso; lateribus infra medium sensim nonnihil angustata, apice singulatim subrotundata, superne convexa, tenuiter punctato-striata, interstitiis subtilissime crebre punctulatis; lutea, nitida, sutura vittaque disci sat lata, a basi apicem versus sensim introrsum obliqua, pone basin extus nonnihil emarginata, ante apicem abbreviata, nigra. Pygidium nigrum, subopacum, crebre punctatum, tenuiter pubescens, utrinque obsolete ferrugineo-marginatum. Corpus subtus nigrum, crebre punctulatum, parce pubescens. Abdomen anguste luteo-marginatum. Pedes punctulati; femoribus nigris, anticis ima basi, tibiis tarsisque lutescentibus." (Boheman.)

Genus Loxopleurus, Suffr.
Linn. Entom. xiii. p. 125.

1. *Loxopleurus rufescens*, Boh.
Eugenies Resa, Insekter, p. 161.
Suffr. Linn. Entom. xiii. p. 137.

" Oblongo-ovatus, convexus, rufo-testaceus, subopacus; capite, antennis extrorsum scutelloque nigris; prothorace convexo, crebre punctulato, pone medium utrinque leviter impresso, apice medio producto; elytris evidentius crebre punctatis, leviter costatis, margine basali tenuiter maculisque duabus parvis disci pone medium, nigris." (Boheman.)

Long. $\frac{3}{4}$ lin.

Hab. Malacca; also New Holland (Sidney).

2. *Loxopleurus lætus*, n. sp. (Pl. III. fig. 7.)

Elongatus, parallelus, dorso subcylindricus, fulvus, nitidus; antennis extrorsum fuscis; scutello nigro-piceo; elytris punctato-striatis, fasciâ latâ basali et plagâ magnâ subtrigonatâ ante apicem positâ obscure cæruleis.

Var. A. Elytris totis obscure cæruleis.

Long. 3 lin.

Hab. Kai Island. Var. A, Batchian.

Head flat, base deeply but not closely punctured on its lower half, punctures crowded on the inner border of the eyes, front impressed with a shallow longitudinal groove, nearly free from punctures; eyes ovate, their inner edge angularly notched; antennæ slender, two-thirds the length of the body. Thorax nearly twice as broad as long across the base; sides rounded and converging from base to apex, posterior angles acute, basal border truncate on either side, medial lobe slightly produced, its apex broadly truncate; upper surface convex, smooth and shining, nearly impunctate, being only impressed at very distant intervals with a few deep punctures. Scutellum oblique, elongate-trigonate, thickened, its basal margin overlapping the basal lobe of the thorax; surface smooth, impunctate. Elytra scarcely broader than the base of the thorax, parallel, sides not distinctly lobed at their base; upper surface subcylindrical, excavated at the base within the humeral callus, slightly thickened around the scutellum; on each are nine or ten rows of deep piceous punctures, which are placed somewhat irregularly in each row; near the suture, on the basal half and on the outer border, the puncturing is less regular; interspaces between the punctures smooth, impunctate.

Fam. EUMOLPIDÆ, Lacordaire.

Genus Aoria, Baly.

Journ. of Entom. ii. p. 149.

Corpus oblongum, subcylindricum, pilis adpressis dense vestitum. *Caput* exsertum, perpendiculare; *antennis* subfiliformibus, modice robustis, articulo primo incrassato, secundo illo fere dimidio breviore, ovato, tertio ad apicem incrassato, secundo longiori sed quarto breviori; *oculis* integris, prominentibus; *menti* margine antico concavo. *Thorax* subcylindricus, margine laterali obsoleto. *Elytra* thorace multo latiora, crebre punctata. *Pedes* modice robusti; *femoribus* subincrassatis, muticis; *unguiculis* bifidis. *Prosternum* transversum, sulcis suturalibus inter sternum et episterna obsoletis. *Mesosternum* transversum vel transverso-quadratum, apice bifurcato.

Aoria closely resembles in habit the European genus *Adoxus*. It may, however, be easily known by the absence of the sutural grooves between the prosternum and the anterior episterna.

1. *Aoria Bowringii*, Baly. (Pl. IV. fig. 1.)

Adoxus Bowringii, Baly, Journ. of Entom. i. p. 27.

Ovatus, valde convexus, nuceus, pilis adpressis obscure fulvis indutus; thoracis plagâ obtrigonatâ, elytrorum maculis 7, metacoxis pleurarumque plagâ nigris.

Var. A. Thoracis plagâ elytrorumque maculis nonnullis obsoletis.

Long. $2\frac{1}{2}$—3 lin.

Hab. Malacca, Borneo, Penang; also Birmah, Gambodia, and Northern China.

Ovate, very convex, nuceous; body covered with obscure fulvous adpressed hairs; an obtrigonate patch in the centre of the thorax, seven spots on the elytra, a patch at the apex of each pleura, and the metacoxæ shining black. Head distinctly punctured; epistome triangular, separated from the face by a grooved line; on either side, just above the insertion of the antennæ, is a slightly raised smooth tubercle; eyes black. Thorax subglobose above, covered with fulvous hairs, which are shorter and less depressed than those of any other part of the body; sides regularly rounded; surface deeply punctured, puncturing crowded and rugose on the sides, somewhat more scattered on the disk, the middle of the latter covered by a large obtrigonate black patch. Elytra oblong, sides parallel, slightly narrowed near the apex, the latter regularly rounded, debiscent at the sutural angle; above convex; each elytron with eleven sulcate striæ, the first abbreviated, each stria impressed with a single row of irregular punctures, interspaces somewhat raised and subcostate towards the lateral margin, their surface covered with distinct punctures, which render those of the striæ confused; a large subbasal rotundate spot, a common bilobate patch at the middle of the suture, another, larger and oblong-ovate, placed behind the middle, and a small spot placed externally to the humeral callus, shining black.

This insect varies in the number of black spots on the elytra. The patch on the thorax is also sometimes wanting. A second species, *A. nigripes*, mihi (Journ. Ent. i. p. 28), is found in Siam, from which point it ranges upwards (like the present insect) as far north as China. It in all probability is also found in Malacca, although I have not as yet seen specimens coming from that locality.

Genus Stasimus, Baly.

Journ. of Entom. ii. p. 150.

Corpus oblongum, subcylindricum, supra setis rigidis suberectis, subtus pilis squamiformibus vestitum. *Caput* exsertum, perpendiculare, oblongum; *antennis* dimidio corporis æqualibus, articulo primo incrassato, secundo modice incrassato, primo paullo breviori, tertio et tribus sequentibus singulis longitudini secundi æqualibus, gracilibus, septimo et sequentibus modice incrassatis, septimo pyriformi, octavo, nono et decimo moniliformibus, undecimo ovato; *oculis* integris; *mento* angulato-emarginato. *Thorax* antice gibbosus, margine laterali obsoleto. *Elytra* profunde punctata, interspatiis incrassatis, hic illic tuberculatis. *Pedes* modice robusti, *femoribus* anticis quatuor subtus dente brevi armatis; *tarsorum* articulo basali secundo vix longiori; *unguiculis* bifidis. *Prosternum* subquadratum, postice dilatatum, sulcis inter sternum et episterna obsoletis. *Mesosternum* subquadratum, apice dilatato, obtuso.

Stasimus is separated from all allied forms by the gibbous thorax, tuberculated elytra, and peculiar antennæ.

1. *Stasimus rugosus*, Baly. (Pl. IV. fig. 2.)

Journ. of Entom. ii. p. 150.

Oblongus, subcylindricus, opacus, fuscus; thorace rugoso, dorso ante medium gibboso; elytris profunde punctatis, punctis in striis irregulariter dispositis, interspatiis incrassatis, hic illic tuberculis verrucosis instructis.

Long. $2\frac{1}{2}$ lin.

Hab. Singapore.

Head rugose, closely covered with suberect pale hairs, epistome transverse, triangular, its surface also rugose. Thorax rather broader than long, narrowing towards the apex; the lateral margin obsolete, the anterior angle only being indicated by an obtuse tooth; anterior half of disk occupied by a strongly raised gibbosity, behind which, on either side, is a broad but ill-defined oblique excavation; whole surface closely covered with pale suberect hairs. Elytra less closely but more deeply punctured than the thorax, more sparingly pubescent; the wart-like tubercles ill-defined, with the exception of one or two near the suture; shoulders prominent.

Genus Aulexis, Baly.

Journ. of Entom. ii. p. 153.

Corpus elongatum, subcylindricum, pilis suberectis vestitum. *Caput* exsertum, *facie* perpendiculari; *epistomatis* margine antico dentibus duobus compressis armato; *antennis* subfiliformibus, articulo basali incrassato, secundo dimidio breviori, modice incrassato, tertio quarto paullo breviore; *oculis* prominentibus, ovatis, intus leviter sinuatis; *mento* antice concavo. *Thorax* antice constrictus, cylindricus, postice depressus et plus minusve transversim excavatus, margine laterali apice obsoleto, medio tridentato. *Elytra* thorace paullo latiora, parallela. *Pedes* mediocres, robusti; *femoribus* subincrassatis, muticis; *unguiculis* basi dentatis. *Prosternum* angustatum, elongatum, sulcis inter sternum et episterna obsoletis. *Mesosternum* angustatum, apice dilatato, trilobato.

1. *Aulexis nigricollis*, Baly.

Journ. of Entom. ii. p. 154.

Elongata, parallela, fusco-fulva, subnitida, pilis suberectis concoloribus, sat dense vestita; thorace nigro, griseo-villoso, sat crebre punctato, basi rugoso, utrinque pone medium oblique excavato, vertice piceo.

Long. $2\frac{1}{2}$ lin.

Hab. Borneo (Sarawak).

Head coarsely punctured; epistome more deeply and coarsely punctured than the rest of the face; antennæ two-thirds the length of the body, slightly thickened towards the apex. Thorax deeply and closely punctured, rugose-punctate at the base, obliquely impressed on each side behind the middle with an ill-defined groove, which meets the opposite one just in front of the scutellum; apical border of thorax obscure fulvous. Elytra closely and coarsely punctured, obsoletely depressed below the basilar space.

2. *Aulexis Wallacei*, n. sp. (Pl. IV. fig. 5.)

Elongata, parallela, fusco-fulva, nitida, pilis suberectis concoloribus dense vestita; capite (antennis labroque exceptis) thoraceque nigris, pilis griseis obsitis, hoc utrinque pone medium oblique excavato.

Long. $3\frac{1}{2}$ lin.

Hab. Sarawak, Singapore, Penang, Tondano.

Head coarsely punctured, epistome much more coarsely and deeply punctured than the upper portion of the face; in the middle of the face is an indistinct longitudinal ridge; antennæ slender, filiform, nearly two-thirds the length of the body. Thorax clothed with long griseous hairs, closely punctured, the punctures very crowded at the base; on either side behind the middle is a broad ill-defined oblique groove, which meets its fellow at an obtuse angle just in front of the scutellum. Elytra closely punctured, the puncturing rather coarser than that of the thorax; surface clothed with concolorous hairs.

3. *Aulexis varians*, n. sp.

Subelongata, minus parallela, obscure fulva, nitida, griseo-villosa, antennis extrorsum elytrisque nigro-piceis; thorace transverso, subcrebre punctato, pone medium arcuatim excavato; elytris subcrebre punctatis.

Var. A. Elytris basi fulvis.

Var. B. Elytris totis fulvis.

Long. $1\frac{1}{2}$ lin.

Hab. Sarawak.

Subelongate, obscure fulvous, clothed with suberect griseous hairs. Head punctured, epistome more distantly and much more coarsely punctured than the face; antennæ subfiliform, distinctly thickened towards the apex, the six or seven outer joints piceous. Thorax transverse, more finely and less closely punctured than in either of the two preceding species; impressed near the base with a broad arcuate transverse excavation, which extends nearly across the entire thorax. Elytra shorter and broader than in the two other species, more convex and more finely punctured; basilar space on each elytron slightly thickened.

Genus Piomera, Baly.

Journ. of Entom. ii. p. 156.

Corpus non metallicum, elongatum, subcylindricum, squamis adpressis vestitum, subtus (pedibus exceptis) fere glabrum. *Caput* exsertum, perpendiculare; *antennis* gracilibus, subfiliformibus, articulo basali incrassato, secundo brevi, ovato, subincrassato, tertio et sequentibus subæqualibus, singulis articulo basali paullo longioribus, tertio et tribus proximis gracilibus, cæteris paullo incrassatis; *oculis* prominentibus, rotundatis, integris; *epistomate* elevato, transverso, brevi;

mento angulato-emarginato. *Thorax* subcylindricus, margine laterali obsoleto. *Elytra* thorace multo latiora, parallela, profunde striato-punctata. *Pedes* robusti, squamosi; *femoribus* subtus dente robusto armatis, anticis fortiter, posticis modice incrassatis; *tibiis* anticis ad apicem incrassatis; *tarsorum* articulo basali duobus sequentibus conjunctis vix brevioribus; *unguiculis* bifidis, dente interno brevi. *Prosternum* oblongum, sulcis inter sternum et episterna obsoletis. *Mesosternum* transverso-quadratum, apice obtusum.

The very large anterior thighs separate *Piomera* from the other nearly-allied scaly genera, the transverse epistome from *Metaxis*.

1. *Piomera brachialis*, Baly. (Pl. IV. fig. 3.)

Journ. of Entom. ii. p. 157.

Elongata, subcylindrica, fulva, subnitida, squamis curvatis adpressis pallide fulvis vestita; thorace rugoso-punctato; elytris profunde striato-punctatis.

Long. $1\frac{1}{2}$ lin.

Hab. Borneo.

Head short, triangular, upper portion of face and vertex covered with adpressed scales; antennæ two-thirds the length of the body, pale fulvous, their outer half fuscous. Thorax rather longer than broad, cylindrical, narrowed at base and apex, medial portion thickened above. Elytra oblong, much broader than the thorax, sides parallel, apex regularly rounded; surface closely and deeply punctured, the punctures arranged in irregular rows, the interspaces on the outer side subcostate, scales covering the surface arranged in irregular patches. Anterior thighs greatly swollen, inner edge of anterior tibiæ cut obliquely towards the apex.

Genus Metaxis, Baly.

Journ. of Entom. ii. p. 157.

Corpus oblongum, subcylindricum, supra squamosum. *Caput* modice exsertum, perpendiculare; *antennis* gracilibus, filiformibus, corporis longitudini fere æqualibus, articulo primo incrassato, secundo brevissimo, modice incrassato, tertio gracili, longitudine duobus anticis conjunctis æquali, cæteris singulatim tertio fere æqualibus, articulis quatuor vel quinque ultimis leviter incrassatis et vix brevioribus; *oculis* integris,

prominentibus; *epistomate* triangulari, cuneiformi; *mento* angulato-emarginato. *Thorax* subcylindricus, margine laterali obsoleto. *Elytra* thorace multo latiora, punctato-striata, setulis rigidis erectis nonnullis instructa. *Pedes* mediocres; *femoribus* subtus unidentatis, anticis et posticis distincte, intermediis minus incrassatis; *tibiis* intermediis extus ad apicem emarginatis; *unguiculis* bifidis. *Prosternum* latum, elongatum, episternis anticis non separatum. *Mesosternum* oblongum.

This genus is distinguished from *Piomera* by the form of its epistome, and also by its slender mid-femora.

1. *Metaxis sellata*, Baly. (Pl. IV. fig. 4.)

Journ. of Entom. ii. p. 157.

Oblonga, subcylindrica, fulvo-fusca, squamis concoloribus vestita; antennarum apice elytrorumque plagâ oblongâ basi ultra medium extensâ, obscure fuscis; oculis nigris.

Long. $1\frac{3}{4}$ lin.

Hab. Borneo (Sarawak).

Head closely punctured, covered with adpressed scales; jaws dark fuscous. Thorax scarcely broader than long, somewhat flattened above, closely covered with scales; sides slightly rounded, converging in front, lateral border obsolete, all the angles armed with a short obtuse tooth. Elytra nearly three times the length of the thorax, parallel; surface deeply punctate-striate, closely covered with scales arranged in small irregular patches and intermingled with a few rigid erect fuscous hairs; the dark fuscous patch clothed with concolorous scales, which are less crowded than those covering the general surface of the elytra.

Genus Demotina, Baly.

Journ. of Entom. ii. p. 158.

Corpus non metallicum, oblongum, subcylindricum, squamis adpressis vestitum. *Caput* exsertum, perpendiculare; *antennis* filiformibus aut subfiliformibus, articulo basali ovato, incrassato, secundo primo breviori, quatuor aut quinque ultimis sæpe leviter incrassatis; *oculis* prominentibus, integris; *mento* emarginato; *epistomate* emarginato. *Thorax* transversim convexus aut subcylindricus, margine laterali obsoleto, vel rarius in loco marginis series unica dentium. *Scutellum* semiovatum. *Elytra* oblonga, crebre punctata. *Pedes* medi-

ocres ; *femoribus* modice incrassatis, subtus unidentatis ; *tibiis* posterioribus quatuor extus ad apicem emarginatis, posticis interdum integris ; *unguiculis* bifidis. *Prosternum* oblongum aut oblongo-quadratum, sulcis inter sternum et episterna obsoletis. *Mesosternum* oblongo-quadratum.

A. *Sides of thorax armed with a row of short teeth.*

1. *Demotina serraticollis*, n. sp.

Oblonga, convexa, picea, subopaca, sat dense squamosa, pedibus antennisque rufo-piceis ; thoracis margine laterali serrato ; elytris striato-punctatis, squamis fuscis et sordide albis variegatis, setis erectis piceis nonnullis instructis.

Long. 2 lin.

Hab. Penang.

Head closely covered with adpressed dirty-white scales ; epistome transverse, not distinctly separated from the face, its surface glabrous, rugose, rufo-piceous ; antennæ slender, nearly filiform. Thorax transverse, sides rounded, converging in front, lateral margin armed with a single row of short teeth ; upper surface transversely convex, coarsely punctured, rugose on the sides, clothed with adpressed dirty-white scales. Elytra coarsely striate-punctate, convex, clothed with dirty-white scales, intermixed with others of a dark fuscous colour, which form irregular patches on the surface ; in addition are numerous erect rigid hairs.

2. *Demotina rugicollis*, n. sp.

Oblonga, convexa, picea, subnitida, albo-squamosa ; epistomate transverso, antennis pedibusque rufo-piceis ; thorace rugoso-punctato, ad latera rude rugoso, margine laterali serrato ; elytris rufo-piceo-maculatis, rude striato-punctatis, interspatiis irregulariter elevatis, ad apicem costatis, squamis hic illic irregulariter congregatis.

Long. $1\frac{2}{3}$—2 lin.

Hab. Celebes.

Head covered with adpressed scales, epistome glabrous, broader than long, distinctly separated from the face by a sutural groove ; eyes large, prominent. Thorax rather broader than long, sides rounded, armed with a single row of small teeth, which owing to the rugosity of the surface are not easily seen ; upper surface transversely convex, slightly flattened on the middle of the disk,

the latter clothed with adpressed scales, which, radiating from the centre, are spread equally over the whole surface. Elytra stained with irregular obscure rufous patches, coarsely striate-punctate, convex, scarcely excavated below the basilar space; interspaces thickened and strongly elevated, especially on the sides, towards the apex they form longitudinal costæ; they are clothed with adpressed white scales, scattered irregularly on the surface, and forming here and there large ill-defined patches.

This species may at once be known from *D. serraticollis* by the absence of the erect setæ on the surface of the elytra.

B. *Sides of thorax unarmed.*

§ *Elytra furnished with numerous short erect setæ.*

3. *Demotina murina*, n. sp.

Oblonga, convexa, picea, subopaca, dense fusco-squamosa; elytris setulis erectis piceis sparse vestitis; ore, antennis pedibusque rufo-piceis, nitidis.

Long. $2\frac{1}{2}$ lin.

Hab. Java.

Head densely clothed with adpressed fuscous scales, epistome broader than long, not distinctly separated from the face, entirely glabrous, with the exception of a few scale-like hairs. Thorax transverse; sides entire, rounded, slightly converging in front, anterior and posterior angles each armed with a short obtuse tooth; upper surface transversely convex, coarsely punctured, the scales on the surface more densely crowded on the sides. Elytra coarsely striate-punctate, closely covered with adpressed scales, in addition to which are a number of short rigid erect piceous hairs.

§§ *Elytra not furnished with erect setæ.*

4. *Demotina bivittata*, n. sp.

Oblonga, subcylindrica, pallide picea, subopaca, albo-squamosa; facie, antennis pedibusque pallide rufo-piceis; thorace latitudini æquilongo, subcylindrico, rugoso-punctato, sat dense squamoso, squamis utroque latere vittâ latâ dispositis; elytris profunde striato-punctatis, interstitiis elevatis, sat dense squamosis, squamis striatim dispositis, hic illic congregatis, et plagas albidas formantibus; epistomate breviter cuneiforme.

Long. $1\frac{1}{2}$ lin.

Hab. Ceram.

Head opake, clothed with the usual white scales, epistome broadly wedge-shaped; eyes large, prominent, nigro-piceous. Thorax not broader than long, subcylindrical, slightly gibbous on the disk, sides rounded, converging from the middle to the apex. Scutellum truncate, nigro-piceous. Elytra indistinctly depressed below the basilar space, the latter obsoletely elevated; deeply and coarsely punctured, the punctures arranged in longitudinal rows, their interspaces thickened and elevated; shoulders somewhat prominent; scales covering the surface rather longer and slightly less adpressed than those on the head and thorax, arranged in ill-defined longitudinal rows, more crowded here and there, and forming small irregular patches on the surface.

5. *Demotina grisea*, n. sp.

Oblonga, convexa, nigro-picea, subnitida, sat dense albo-squamosa; thorace latitudini æquilongo, rugoso-punctato, ad latera rude rugoso, lateribus rotundatis, ante medium convergentibus; elytris fortiter striato-punctatis; epistomate cuneiforme; antennis, tibiis apice, tarsisque rufo-piceis.

Long. $1\frac{1}{2}$ lin.

Hab. Sarawak.

Head clothed with adpressed scales; epistome wedge-shaped, longer than broad, distinctly separated from the face by a deep sutural groove; eyes large, prominent; basal joints of antennæ fulvous. Thorax transversely convex above, slightly flattened on the disk; surface rugose-punctate. Elytra coarsely striate-punctate, somewhat closely clothed with adpressed scales, which are distributed nearly equally over their whole surface.

This species may be known from *D. rugicollis* by the absence of teeth on the lateral margin of the thorax, by the larger wedge-shaped epistome, and by the more equal distribution of the scales over the surface of the elytra.

6. *Demotina Wallacei*, n. sp.

Oblonga, convexa, picea, subnitida, dense albo-squamosa; thorace longitudine vix latiori, subcylindrico, ante apicem transversim depresso, rugoso-punctato; elytris infra basin

transversim excavatis, striato-punctatis, sat dense striatim squamosis.

Long. $1\frac{2}{3}$ lin.

Hab. Menado.

Head clothed with adpressed scales; epistome pale rufo-piceous, wedge-shaped, distinctly separated from the face by a sutural groove, its surface nearly glabrous; eyes large, prominent. Thorax slightly broader than long, sides rounded, scarcely converging in front, above subcylindrical, slightly flattened on the disk, rugose-punctate, impressed at a short distance behind the anterior border with a broad but shallow and ill-defined transverse groove; surface clothed with adpressed scales, which radiate from the centre, and are distributed equally over the whole disk. Elytra coarsely striate-punctate, depressed transversely below the basilar space; somewhat closely covered with scales, which are spread equally over the whole surface, and arranged in longitudinal rows.

The transverse depression on the thorax, together with the extremely regular distribution of the scales on the elytra, will separate this insect from its congeners.

7. *Demotina pauperata*, n. sp.

Oblonga, subcylindrica, picea, subnitida, albo-squamosa, epistomate pedibusque (his plus minusve infuscatis) pallide rufo-piceis; thorace longitudine paullo latiori, transversim convexo, opaco, profunde punctato; elytris sat dense squamosis, profunde striato-punctatis, interstitiis disci elevatis strigas transversas indistinctas formantibus; epistomate transverso.

Long. 1 lin.

Hab. Dorey.

Head opake, finely rugulose, coarsely but not deeply punctured, clothed with ovate adpressed scales; epistome nitidous, distinctly punctured, transverse, its upper end broadly truncate. Thorax rather broader than long, transversely convex, sides rounded, slightly converging in front; surface rugulose, deeply punctured, clothed with adpressed scales. Scutellum obscure piceous, its apex obtusely truncate. Elytra subopake, deeply and coarsely striate-punctate, interspaces thickened, forming on the anterior half of the surface ill-defined transverse strigæ; scales rather more curved than those on the thorax, scattered irregularly over the whole surface.

8. *Demotina Jansoni*, n. sp.

Oblonga, subcylindrica, nigro-picea, opaca, albo-squamosa; epistomate, antennarum basi tibiisque (his plus minusve infuscatis) rufo-piceis; thorace latitudini æquilongo, subcylindrico, rude rugoso; elytris profunde striato-punctatis, sat dense squamosis, squamis hic illic congregatis, plagas indistinctas formantibus; epistomate transverso.

Long. $1\frac{1}{3}$ lin.

Hab. Waigiou.

Head opake; surface finely rugulose, clothed with large adpressed white scales; epistome shining, transverse, not distinctly separated from the face; eyes large, prominent. Thorax not broader than long, sides rounded, obliquely converging from behind the middle to the apex; surface coarsely rugose, clothed with ovate adpressed scales, which are rather more crowded towards the lateral border. Elytra obsoletely depressed below the basilar space, the latter indistinctly elevated, shoulders slightly prominent; surface deeply and coarsely striate-punctate, clothed with large ovate scales arranged (although somewhat indistinctly) in longitudinal rows; on each elytron are several patches of similar scales; interspaces at the base raised and forming faint transverse strigæ.

Nearly allied to *D. pauperata*, of which insect it may be only an extreme variety.

9. *Demotina parvula*, n. sp.

Oblonga, subcylindrica, picea, subnitida, albo-squamosa; antennis basi, pectore, epistomateque pallide rufo-piceis; thorace latitudine vix longiori, subcylindrico, rude rugoso-punctato; elytris profunde striatim punctatis, sparsius squamosis, squamis hic illic congregatis, plagas albidas formantibus; epistomate cuneiforme.

Long. $\frac{4}{5}$—1 lin.

Hab. Menado.

Head opake, clothed with adpressed scales; epistome not broader than long, indistinctly separated from the face, wedge-shaped, its apical angle obtuse, surface shining, rugose-punctate; eyes large, prominent. Thorax scarcely longer than broad, subcylindrical, sides nearly regularly rounded; surface coarsely but not deeply rugose, covered on the disk with raised reticulations; clothed with adpressed scales, which are more crowded near the

lateral margins, where sometimes they form an ill-defined longitudinal vitta. Elytra deeply and coarsely striate-punctate, subnitidous, interspaces on the middle of the disk raised and forming indistinct transverse ridges, scales clothing their surface collected into irregular ill-defined patches.

10. *Demotina rufopicea*, n. sp.

Oblonga, subcylindrica, rufo-picea, subnitida, albo-squamosa; thorace latitudini æquilongo, subcylindrico, rugoso-punctato; elytris profunde striatim punctatis, interstitiis elevatis, squamis hic illic congregatis, plagas albidas formantibus; epistomate cuneiforme.

Long. $1\frac{1}{3}$ lin.

Hab. Menado.

Head clothed with coarse adpressed scales; epistome wedge-shaped, not distinctly separated from the face, its surface glabrous; eyes large, prominent. Thorax subcylindrical, sides converging in front; surface coarsely rugose-punctate, clothed with adpressed whitish scales. Elytra coarsely and deeply striate-punctate, the interspaces thickened, scales on the surface arranged in irregular patches.

Very nearly allied to *D. parvula*, and very possibly only a variety of that insect; it differs chiefly in the coarser punctation of the elytra.

11. *Demotina ornata*, n. sp. (Pl. IV. fig. 8.)

Oblonga, convexa, nigra, nitida; tibiis apice, tarsis, antennis (his extrorsum piceis), epistomate labroque fulvis; thorace vittis duabus, elytrisque maculis nonnullis è squamis albis formatis ornatis.

Long. $1\frac{3}{4}$ lin.

Hab. Ceram.

Head coarsely punctured; face clothed on either side within the eyes with adpressed white scales; antennæ slightly thickened towards the apex, slender, two-thirds the length of the body, pale fulvous, six outer joints piceous. Thorax scarcely broader than long, subcylindrical, sides slightly rounded, converging in front; surface closely covered with large round shallow punctures, sparingly clothed with white scale-like hairs, either side of the disk with a broad longitudinal vitta of adpressed white scales. Elytra striate-punctate, sparingly clothed with white scale-like hairs;

each elytron with a short subsutural stripe placed at the apex, another submarginal, also apical and confluent with the former, and also with four small patches arranged as follows, viz.:—one just before the middle, two others subparallel just behind the middle, and the fourth halfway between the middle and apex. These markings are all formed of white adpressed scales.

The black, shining, nearly glabrous body of this insect, contrasted with the well-defined patches of white scales ornamenting the surface, gives it an entirely different aspect to any other known species of the genus.

Genus Apolepis, Baly.

Journ. of Entom. ii. p. 161.

Corpus oblongum, subcylindricum, squamis suberectis curvatis, apice elongatis, filiformibus, obtectum. *Caput* perpendiculare, thorace fere insertum; *epistomate* cuneiforme; *antennis* subfiliformibus, articulo basali incrassato, secundo modice incrassato, primo longitudine æquali, tertio secundo fere æquali, gracili, cæteris ad decimum singulatim secundo fere æqualibus, undecimo paullo longiori, articulis quinque ultimis incrassatis; *oculis* integris, rotundatis, prominentibus, sulco orbitali circumdatis. *Thorax* subcylindricus, dorso magis convexus, utrinque in loco marginis lateralis serie unicâ dentium parvorum instructus, margine ipso obsoleto. *Elytra* fortiter striato-punctata, dense squamosa, squamis in seriebus longitudinalibus dispositis. *Pedes* modice robusti; *femoribus* subtus unidentatis; *tibiis* anticis leviter incurvatis, intermediis extus ad apicem emarginatis; *tarsorum* articulo basali secundo longitudine æquali.

1. *Apolepis aspera*, Baly. (Pl. IV. fig. 7.)

Journ. of Entom. ii. p. 161.

Oblonga, subcylindrica, picea, subnitida, squamis suberectis, fortiter curvatis, concoloribus, vestita.

Long. 1½ lin.

Hab. Borneo (Sarawak), Sumatra.

Head closely covered with scales. Thorax coarsely punctured. Elytra coarsely punctate-striate, the interspaces somewhat thickened.

Genus Lepina, Baly.

Journ. of Entom. ii. p. 161.

Corpus oblongum, subcylindricum, squamis gracilibus curvatis vestitum. *Caput* breve, thorace profunde insertum, perpendiculare; *ore* prosterni margine antico tecto; *antennis* subfiliformibus, articulis quinque ultimis incrassatis; primo et secundo longitudine fere æqualibus, illo fortiter, hoc modice incrassatis, tribus sequentibus etsi fere æqualibus, subgracilibus, sexto et septimo æqualibus, obconicis, octavo ad decimum submoniliformibus, undecimo ovato; *epistomate* cuneiformi; *oculis* integris. *Thorax* paullo latior quam longus, subcylindricus, margine antico distincto, disco squamis curvatis vestito. *Elytra* punctato-striata, squamis subdepressis seriebus longitudinalibus dispositis vestita. *Pedes* modice robusti; *femoribus* posticis subtus dente brevi armatis; *tarsorum* articulo basali secundo vix longiori; *unguiculis* bifidis. *Prosternum* subelongatum, utrinque sulco profundo episternis separatum, margine antico paullo producto. *Mesosternum* subquadratum, apice paullo dilatato, trilobato.

The form of the scales at once divides *Lepina* from *Aulacolepis;* in habit it closely agrees with *Apolepis*, but the sutural grooves dividing the anterior episterna from the prosternum separate it from that genus.

1. *Lepina inconspicua*, Baly. (Pl. IV. fig. 6.)

Journ. of Entom. ii. p. 162.

Oblonga, subcylindrica, rufo-picea, subnitida, squamis gracilibus curvatis suberectis vestita; thorace (margine antico excepto), femorum basi, genubus, antennisque extrorsum, nigropiceis.

Long. 1½ lin.

Hab. Pulo Penang. Collected by Mr. Bowring.

This insect bears a strong resemblance to *Apolepis aspera;* in addition, however, to the structural characters, the scales covering the surface are much narrower, less rigid and less erect, those on the thorax being almost adpressed. Thorax coarsely punctured. Elytra punctate-striate near the suture, confusedly punctured on the disk; scales arranged as in *Apolepis*.

Genus Aulacolepis, Baly.

Journ. of Entom. ii. p. 162.

Corpus oblongum, subcylindricum, squamis latis, magnis, rigidis, dorso concavis, adpressis vel suberectis vestitum. *Caput* breve, perpendiculare, thorace profunde insertum; *antennis* ultra thoracem vix extensis, extrorsum modice incrassatis, basi gracilibus, articulo basali incrassato, secundo breviori, modice incrassato, articulis tertio ad sextum singulis primo fere æqualibus sed perparum longitudine decrescentibus, septimo ad decimum modice incrassatis, inter se fere æqualibus, submoniliformibus, undecimo paullo longiore, ovato; *oculis* integris; *mento* angulato-emarginato. *Thorax* transversus, antice subcylindricus, disco gibboso, tuberculato, margine laterali distincto, interdum serrato. *Elytra* thorace multo latiora, subparallela, rugoso-punctata, squamis adpressis dense vestita, hic illic fasciculis squamarum erectarum ornata. *Pedes* robusti; *femoribus* subtus dente robusto armatis; *tibiis* curvatis; *unguiculis* bifidis. *Prosternum* transverso-quadratum; *episterno* antico scapulariformi, a prosterno sulco profundo separato. *Mesosternum* breve, transversum, apice concavo.

1. *Aulacolepis decorata*, n. sp. (Pl. V. fig. 8.)

Breviter oblonga, convexa, obscure nigro-picea, dense rufo-piceo-squamosa; thorace bimamillato, vittis tribus elytrisque plagis nonnullis è squamis nigris formatis ornatis; his squamulis albidis suberectis hic illic sparse decoratis.

Long. 3 lin.

Hab. Sumatra.

Head densely clothed with adpressed rufo-piceous scales; antennæ obscure rufo-fulvous. Thorax transverse, sides rotundate-ampliate, disk furnished just before the middle with two large parallel conical tuberosities; surface coarsely punctured, densely clothed with rufo-piceous scales, with the exception of three longitudinal vittæ which extend from the basal margin to beyond the middle of the disk, the scales on which are black. Elytra coarsely punctured, basilar space slightly raised, shoulders prominent; surface covered with rufo-piceous scales, intermixed here and there with irregular patches of black scales on the surface; a broad transverse patch below the basilar space is nearly denuded of scales; placed near the middle of the suture is a short

longitudinal stripe of nearly erect black scales; on the hinder disk are also a number of small patches of dirty-white suberect scales.

Genus Pachnephorus, Redt.

Faun. Aust. i. p. 569; Baly, Journ. of Entom. ii. p. 436.

Corpus elongatum, parallelum, subcylindricum, non aut vix metallicum, squamis adpressis, apice emarginatis aut bifidis, plus minusve dense vestitum. *Caput* thorace insertum, perpendiculare; *fronte* inflatâ; *antennis* subfiliformibus, ad apicem distincte incrassatis, articulo basali incrassato, secundo primo fere æquali, modice incrassato, tertio secundo non longiori, articulis quinque ultimis leviter compressis, latitudine gradatim crescentibus; *oculis* prominentibus, intus leviter sinuatis. *Thorax* dorso subcylindricus, margine laterali distincto, integro, mutico. *Elytra* parallela aut subparallela, subcylindrica, striato-punctata. *Pedes* modice robusti; *femoribus* muticis; *tibiis* quatuor posticis singulis extus prope apicem emarginatis; *unguiculis* appendiculatis aut dentatis. *Prosternum* latum, utrinque ab episterno sulco profundo separatum; *episternis* anticis scapulariformibus.

1. *Pachnephorus clypeatus*, n. sp.

Elongatus, subcylindricus, subparallelus, obscure cupreus, subnitidus, squamis albidis vestitus; labro antennarumque basi rufo-piceis, epistomate basi elevato, apice vix angulato-emarginato, minus rude punctato, nitido; thorace latitudine vix longiori, convexo, crebre et profunde punctato, squamis disci vittas tres formantibus, intermediâ fere obsoletâ; elytris subelongato-ovatis, fortiter striato-punctatis, pilis suberectis, seriatim dispositis instructis, albo-squamosis, squamis hic illic irregulariter congregatis.

Long. $1\frac{2}{3}$—2 lin.

Hab. Gilolo.

Head coarsely and deeply punctured, rugose, epistome thickened at the base, surface oblique, less coarsely punctured than the upper portion of the face, anterior margin slightly angulate-emarginate; basal half of antennæ pale rufo-piceous. Thorax scarcely longer than broad, sides obliquely diverging from the base to beyond the middle, thence rounded and converging to the apex; strongly convex, closely and coarsely punctured; the scales cloth-

ing the surface arranged in three longitudinal rows, one on either side broad and well defined, placed just within the lateral margin, and a third, narrow and indistinct, occupying the middle of the disk; a few scales also scattered over the remainder of the surface. Elytra much broader than the thorax, narrowed from behind their middle, deeply impressed with parallel rows of punctures, from each of which springs a single fine white hair; interspaces towards the apex and on the outer disk thickened; scattered over the whole surface are numerous white scales, which form irregular confluent patches, more crowded towards the apex and on the sides.

2. *Pachnephorus vitticollis*, n. sp. (Pl. V. fig. 2.)

Elongatus, subcylindricus, obscure cupreus, subnitidus, squamis adpressis albidis vestitus; labro, antennarum basi, pedibusque rufo-piceis; thorace subelongato, crebre et fortiter punctato, vittis tribus è squamulis formatis instructo; elytris fortiter striato-punctatis, squamis disci hic illic irregulariter congregatis.

Long. 2 lin.

Hab. Batchian.

Head slightly longer than in the foregoing species, coarsely and closely punctured; epistome broadly but slightly angulate-emarginate in front, thickened at the base, surface oblique, irregularly strigose-rugose. Thorax longer than broad, sides obliquely diverging from the base to beyond the middle, thence rounded and converging to the apex, above convex, closely and coarsely punctured; surface clothed with bifid scales, arranged in three longitudinal rows, one on either side at the lateral margin, broad, dilated in the middle and at the apex, where it is continued along the anterior border of the thorax, and a third very narrow and indistinct, running down the middle of the disk. Elytra very similar in form, puncturing and clothing to *P. clypeatus*.

3. *Pachnephorus convexicollis*, n. sp.

Subelongatus, subcylindricus, obscure cupreus, subnitidus, squamis albidis vestitus, labro antennarumque basi rufo-piceis; thorace latitudine vix longiori, sat convexo, crebre et profunde punctato, ad latera dense squamoso, disco fere glabro; elytris elongato-ovatis, fortiter striato-punctatis, pilis sub-

erectis seriatim dispositis instructis, squamis albidis hic illic congregatis maculas nonnullas formantibus sparse ornatis.

Long. $1\frac{2}{3}$ lin.

Hab. Macassar.

Head coarsely and closely punctured, anterior border feebly but distinctly angulate-emarginate, hinder margin not thickened, surface less oblique than in the preceding species, coarsely punctured. Thorax shorter than broad, very convex above, coarsely and closely punctured; sides obliquely diverging from the base to beyond the middle, thence quickly rounded and converging to the apex; middle of disk glabrous, entire limb clothed with bifid scales. Elytra oblong-ovate, less narrowed posteriorly than in either of the two preceding species, the puncturing similar; surface clothed with fine suberect whitish hairs, which spring singly from each separate puncture, and form longitudinal rows, corresponding in number with the rows of punctures; in addition are the usual bifid scales, which form somewhat distant patches on the disk, and are more crowded at the sides and apex.

Genus Bromius, Baly.

Journ. of Entom. ii. p. 439 (nec Redt.).

Corpus late oblongum aut oblongum, valde convexum, metallicum, pube suberectâ dense vestitum, interdum metallico-sericeum. *Caput* perpendiculare, thorace profunde insertum; *antennis* subfiliformibus aut subincrassatis, articulo basali incrassato, secundo primo paullo breviori, tertio, quarto et quinto singulis secundo paullo longioribus, inter se æqualibus, gracilibus, filiformibus; quinque ultimis plus minusve incrassatis, interdum compressis, clavam distinctam formantibus; *oculis* integris. *Thorax* dorso subcylindricus, margine laterali distincto, integro. *Elytra* thorace multo latiora, lateribus parallelis, apice late rotundato; convexa, rude punctata. *Pedes* robusti; *femoribus* muticis; *tibiis* intermediis extus ad apicem emarginatis; *unguiculis* bifidis. *Prosternum* latum, sulcis inter sternum et episterna obsoletis.

1. *Bromius hirtus*, Fabr.

Eumolpus hirtus, Fabr. Syst. Eleuth. i. p. 420.

Oblongus, valde convexus, metallico-cyaneus aut cæruleus, pube griseâ dense vestitus, supra fortiter et crebre punctatus;

elytris infra basin non aut obsolete transversim depressis; epistomate angulato-emarginato.

Var. A. Viridi-metallicus.

Long. $3\frac{1}{2}$—$5\frac{1}{2}$ lin.

Hab. Malacca, Tringanee, Penang, Sumatra (sec. Fabr.) Var. A. Java; also Silhet.

Head coarsely punctured, anterior margin of epistome angulate-emarginate; four or five basal joints of antennæ rufo-piceous beneath, the second and third sometimes entirely so, the basal joint cupreo-aureous. Thorax subcylindrical above, sides slightly rounded, scarcely converging in front, anterior angle armed with a short tooth. Elytra much broader than the thorax, sides parallel, apex broadly rounded; surface very coarsely and closely punctured. Body beneath and legs more or less stained with metallic green.

2. *Bromius Philippinensis*, Baly.

Journ. of Entom. ii. p. 219.

Oblongus, valde convexus, viridi-cæruleus, nitidus, violaceo-micans, supra pilis brevibus subrectis fuscis vestitus; thorace subgloboso, subcrebre punctato; elytris subcrebre punctatis, infra basin leviter transversim impressis; tibiis intermediis extus ante apicem late emarginatis; corpore subtus pilis cinereis adpressis sat dense vestito; antennis subfiliformibus, gracilibus.

Var. A. Viridi-æneus.

Long. 4 lin.

Hab. Philippine Islands (Manilla).

Larger, more finely and less closely punctured than *B. hirtus*, clothed with finer pubescence, which is white, sparingly intermixed with black. Thorax more convex above, subglobose. Elytra with a distinct transverse depression below the basilar space; surface more finely punctured, and clothed with much finer and more silky pubescence than in the preceding insect.

3. *Bromius evanescens*, Baly. (Pl. V. fig. 3.)

Journ. of Entom. ii. p. 220.

Breviter oblongo-ovatus, valde convexus, cupreus, subcrebre punctatus, supra pube erectâ sat dense instructus; labro

antennisque fulvis ; corpore toto pilis cupreo-sericeis, diverse adpressis et (aspectu mutato) plagas metallico-nitescentes formantibus, dense vestito.

Long. 3—5½ lin.

Hab. Penang, Sumatra, Borneo, Malacca.

Whole body entirely covered with coarse cupreo-sericeous pubescence, adpressed in different directions, and forming large irregular patches, which shine with a metallic lustre, or become dull, according to the position in which the insect is held. Head punctured, anterior edge of epistome angularly notched ; labrum and antennæ fulvous, the latter half the length of the body, their outer half obscure. Thorax transverse, sides slightly rounded, scarcely narrowed in front, anterior angle armed with a short tooth ; surface coarsely punctured, interspaces between the coarser punctures impressed with numerous fine punctures. Elytra more coarsely punctured than the thorax, the puncturing indistinctly arranged in rows.

4. *Bromius cupreatus*, n. sp.

Oblongus, valde convexus, cupreus, nitidus, pilis squamiformibus adpressis concoloribus dense vestitus, supra nigro-setosus ; labro antennarumque basi fulvis, his extrorsum piceis ; capite thoraceque crebre rugoso-punctatis ; elytris profunde punctatis, punctis marginis substriatim dispositis.

Long. 3½ lin.

Hab. Singapore.

Body above closely covered with adpressed squamiform cupreous pubescence, intermixed with which are numerous long erect black hairs. Head rugose-punctate, anterior border of epistome angulate-emarginate ; antennæ more than half the length of the body, subfiliform, three lower joints fulvous, the rest obscure piceous. Thorax transverse, sides rounded, slightly converging from behind the middle to the apex, anterior angle armed with an obtuse tooth, upper surface closely rugose-punctate. Elytra much broader than the thorax, deeply punctured, the punctures large and arranged in longitudinal rows, the interspaces on the outer disk thickened towards their apex, subcostate near the sides. Body beneath clothed with long coarse cupreous pubescence.

Genus Corynodes, Hope.

Col. Man. iii. p. 162; Marshall, Journ. Lin. Soc. Zool. viii. p. 30; Gerst. Reise nach Mossamb. p. 335.

Platycorynus, Baly (*olim*), Desc. New Gen. and Spec. Phyt. p. 2.

Corpus oblongum aut elongatum, convexum, plus minusve cylindricum, plerumque metallicum. *Caput* perpendiculare, thorace profunde insertum; *fronte* utrinque supra oculum plus minusve profunde excavatâ; *mandibulis* plerumque muticis, rarissime in ♂ cornu valido armatis; *antennis* robustis, articulis quinque aut sex exterioribus compressis, plus minusve dilatatis, clavam formantibus, rarissime in ♂ filiformibus; *mento* profunde angulato-inciso; *oculis* prominulis, intus leviter sinuatis. *Thorax* marginatus, transversim convexus, aut subconicus. *Elytra* thorace latiora, parallela, convexa, plerumque infra basin transversim excavata, seriatim aut confuse punctata, rarius in ♀ tuberculata.* *Pedes* robusti, *tibiis* intermediis sæpe in ♂ extus ad apicem emarginatis; *unguiculis* appendiculatis aut bifidis. *Prosternum* utrinque ab episterno sulco profundo separatum; *episternis* anticis scapulariformibus.

The present genus is well represented in the Malay Archipelago, three-fourths of the Asiatic species being natives of that part of the world. The antennæ of all the males have a tendency to elongate, the club at the same time being distinctly narrower than in the females of the same species. In one, *C. monstrosus*, these organs are filiform, the five upper joints, although slightly compressed, not being broader than those immediately below them. In the female of *monstrosus* the antennæ are much shorter and distinctly subclavate; the same sex in this species (as well as in three or four others belonging to the same section of the genus) present the remarkable peculiarity of having their elytra covered with a number of irregular tubercles, whilst the elytra in the males are simply punctured in the ordinary way.

* The exception to this is a single oblong tubercle, more or less distinct, which exists in nearly all the species; it is situated just below the humeral angle, immediately within the outer margin of the elytron.

I. Encarpæ separated from the front by a deep sutural groove; club of antennæ (when present) five-jointed, claws appendiculated.

A. Apex of epistome separated from the front by a distinct sutural groove.

a. Elytra simple in the ♂, more or less tuberculate in the ♀ (*Corynoëides*, Clark; *Omodon*, Marshall).

1. *Corynodes monstrosus.* (Pl. V. fig. 5 ♂, fig. 6 ♀.)

Corynoëides tuberculatus, Clark, Annals and Mag. Nat. Hist. February, 1865.

Elongatus, parallelus, convexus, metallico-cæruleus, subtus viridi-æneus; thorace crebre punctato; elytris apicem versus paullo attenuatis, fortiter sat crebre punctatis, infra basin transversim excavatis; frontis margine antico obtuse angulato, medio paullo producto, angulis lateralibus distinctis.

Mas.—Antennis corpori fere æquilongis, filiformibus, modice compressis; elytris non tuberculatis, callo humerali elevato.

Fœm.—Antennis dimidio corporis longioribus, extus compressis et modice dilatatis; elytris tuberculatis, callo humerali in cretam oblongam elevato.

Var. A. Corpus totum viridi-æneum.

Long. 4—6 lin.

Hab. Pulo-Penang; sent in some abundance by Mr. Lamb.

Head closely punctured, lower margin of face separated from the epistome and encarpæ by a deep groove, obtusely angled, lateral angles distinct, medial produced; epistome triangular, sides slightly rounded; surface closely rugose-punctate, shelving down above until it reaches the level of the sutural groove, thus rendering the latter indistinct in front; encarpæ cultriform, smooth, impunctate, impressed in the middle with a broad oblique groove; antennæ nearly equal to the body in length in the ♂, robust, filiform; rather more than half the length of the body in the ♀, six outer joints compressed and moderately dilated. Thorax nearly a third broader than long; sides rounded, slightly converging in front; surface convex, closely and somewhat finely punctured. Elytra much broader than the thorax; sides slightly but regularly narrowed from the shoulders backwards, their apex subacutely rounded, above convex, transversely excavated on each elytron below the basilar space and also within the humeral callus, the

latter distinctly raised into an oblong ridge; surface closely covered with coarse punctures; on the disk of each elytron are three or four obsoletely raised longitudinal vittæ; in the ♀ the elytra are covered with numerous strongly raised tubercles, placed in about eight longitudinal rows; these become obsolete on the hinder third of the surface, with the exception of the outer row but one, which extends the whole length of the elytron, and is terminated at the suture by a large obtuse tuberosity; outer edge of intermediate tibiæ sinuate near the apex; claws appendiculated.

Not having retained the genus *Corynoëides*, founded by the Rev. H. Clark on the present insect, I have been obliged to change his specific name *tuberculatus*, the same having been previously used for another species (*post*, p. 103).

2. *Corynodes æneus*, Baly.

Platycorynus æneus, Baly, Desc. New Gen. and Spec. Phyt. p. 5.

Subelongatus, viridi-æneus, nitidus; thorace subcrebre punctato; elytris oblongis, parallelis, auri-æneis, anguste viridi-limbatis, infra basin transversim impressis, punctatis, punctis prope suturam subseriatim dispositis; antennis corpore paullo brevioribus, robustis, articulis quinque ultimis obscure purpureis, vix dilatatis; frontis margine antico angulato, utrinque sinuato, angulis lateralibus distinctis.—*Mas.*

Long. $4\frac{1}{2}$ lin.

Hab. Borneo (Sarawak).

Head somewhat coarsely but not very closely punctured, impressed in the middle with a deep longitudinal groove, anterior margin of front separated from the encarpæ and epistome by a deep groove, angular, sinuate on either side, lateral angles distinct; epistome wedge-shaped, sides rounded and converging towards the apex; surface closely punctured, encarpæ cultriform, smooth, impunctate; antennæ nearly equal to the body in length, the five upper joints slightly compressed and very narrowly dilated, obscure metallic purple. Thorax rather more than a third broader than long, sides nearly parallel, rounded and converging in front, extreme edge of lateral border finely crenulate; upper surface transversely convex, sides deflexed in front, distinctly but not very closely punctured. Elytra rather broader than the thorax, oblong, parallel, regularly rounded at their apex; above convex, shoulders moderately prominent, each elytron

transversely excavated below the basilar space ; surface somewhat finely but not very closely punctured, the punctures arranged (but very indistinctly) in irregular ill-defined rows ; intermediate pair of tibiæ notched externally just before the apex ; tarsi greenish-purple.

Although I possess only a single specimen (a ♂) of this insect, and do not know the ♀, I have no hesitation, from the great resemblance in habits to the preceding species, as well as from the similar structure of the antennæ, in placing it in the present section of the genus.

3. *Corynodes aureipennis*, n. sp.

Oblongus, convexus, læte metallico-viridis ; elytris subcrebre fortiter punctatis, aureis, limbo exteriori anguste viridi-marginato ; frontis margine antico rotundato, medio lobato, utrinque sinuato ; antennis clavâ sat late dilatatâ, nigro-purpureâ.

Mas.—Elytris simplicibus.

Fœm.—Elytris disco exteriori vittis elevatis tuberculisque nonnullis instructis.

Long. $3\frac{2}{3}$—4 lin.

Hab. Pulo-Penang ; collected by Mr. Lamb.

Epistome not longer than broad, sides converging backwards, broadly truncate at its apex, where it is separated from the face by a distinct sutural groove ; surface finely rugose-punctate ; face coarsely punctured, impressed in the middle with a broad longitudinal groove, anterior border of face rounded, sinuate on either side, produced medially into a short obtuse lobe, on the surface of which is an elevated ridge ; encarpæ cultriform, separated from the face by a deep groove, their surface smooth, impunctate ; forehead slightly swollen ; antennæ two-thirds the length of the body in the ♂, shorter in the ♀ ; five outer joints dark purple, compressed and gradually increasing in width in the ♂, rather more abruptly dilated in the ♀. Thorax nearly a third broader than long, sides nearly straight and parallel, rounded and converging in front ; above very convex, almost subcylindrical, sides strongly deflexed in front ; surface finely punctured. Elytra much broader than the thorax, sides parallel, their apex acutely rounded in the ♂, subacute in the ♀, above convex, deeply excavated transversely below the basilar space, humeral callus moderately produced ; surface rather coarsely punctured, the puncturing on the inner disk arranged in

irregular longitudinal rows; on the outer disk in the ♀, commencing immediately below the humeral callus, are four strongly raised longitudinal vittæ; two, parallel to each other and to the outer border, unite before their apex and terminate at the suture in a large common tuberosity; the third, parallel to the former two, ends halfway between the middle and apex of the elytron, whilst the fourth, placed still more inwardly towards the middle disk, is very short and scarcely extends beyond the middle of the elytron; on the shoulder are four or five oblong tubercles or ridges.

4. *Corynodes tuberculatus*, Baly.

Platycorynus tuberculatus, Baly, Desc. New Gen. and Spec. Phyt. p. 3.

Corynodes tuberculatus, Marshall, Journ. Lin. Soc. Zool. viii. p. 44.

Oblongo-ovatus, convexus, nitidus, viridi-cæruleus aut purpureus; fronte, thorace elytrisque cupreo-aureis, his anguste viridi-marginatis, subcrebre punctatis; thorace subcrebre punctato; frontis margine antico obtuse angulato, utrinque sinuato, angulis lateralibus distinctis, obtusis.

Mas.—Elytris non tuberculatis; antennis corporis longitudine paullo brevioribus, articulis quinque ultimis obsolete dilatatis.

Fœm.—Elytris intra marginem exteriorem costatis, infra humeros tuberculis nonnullis elevatis instructis; antennis corporis dimidio paullo longioribus, articulis quinque ultimis modice dilatatis.

Var. A. Corpus totum viridi-purpureum.

Long. 4 lin.

Hab. Borneo (Sarawak).

Head coarsely punctured; epistome triangular, truncate at its apex and separated from the face by a distinct sutural groove; surface closely punctured; face impressed with a well-defined longitudinal groove; anterior margin angularly lobed, sinuate on either side, lateral angles distinct. Antennæ nearly equal to the body in length in the ♂, five upper joints very slightly dilated, gradually increasing in width from the seventh to the ninth; in the ♀ they extend rather beyond the anterior half of the body, the five outer joints broader and forming a distinct though narrow club. Thorax transverse, sides rounded, hinder angles armed with a short tooth; above transversely convex, sides deflexed in front, surface finely

and somewhat closely punctured. Elytra broader than the thorax, broadly oblong, sides nearly parallel, apex rounded; above convex, each elytron excavated below the basilar space and within the humeral callus; the latter in the ♂ moderately prominent, in the ♀ it is raised into a short longitudinal ridge. The ♀ also differs from the ♂ in the following characters: parallel to the lateral border is a longitudinal ridge, the basal portion of which is broken up into a number of small tubercles; on the hinder disk it is lost in the general surface of the elytron, with the exception of the extreme apex, where may be seen the traces of an obtuse tubercle; the surface on the inner side of the ridge is longitudinally excavated along the anterior two-thirds of its course; the depression surrounding the base and outer border of the basilar space is more deeply excavated than in the ♂; on the anterior half of the outer disk are a number of irregular tubercles, which vary in number in different individuals; three or four of these are arranged in a longitudinal ridge, which, commencing at the humeral callus, runs for a short distance along the inner border of the longitudinal excavation.

Broader and shorter than *C. aureipennis* (*ante*, p. 102), the antennæ more slender, elytra in the ♀ more strongly tuberculated.

b. Elytra not tuberculate in either sex.*

5. *Corynodes robustus*, Baly.

Platycorynus robustus, Baly, Desc. New Gen. and Spec. Phyt. p. 3.

Oblongus, convexus, metallico-cæruleus, viridi vix tinctus; thorace longitudine vix latiori, antice subconico, subcrebre punctato; elytris infra basin sat profunde transversim excavatis, tenuiter subseriatim punctatis; antennis clavâ valde dilatatâ, obscure purpureâ; frontis margine inferiori obtuse angulato, utrinque sinuato, angulis lateralibus distinctis. ♂.

Long. 5 lin.

Hab. Sumatra.

Face coarsely and irregularly punctured, somewhat swollen on the front, impressed in the middle with the usual longitudinal groove; anterior margin separated from the epistome and encarpæ by a sutural groove, very obtusely angled, the apex scarcely produced, lightly sinuate on either side, lateral angles distinct; epistome scarcely broader than long, wedge-shaped, its apex truncate, surface rugose-punctate; antennæ nearly equal to the

* The subhumeral tubercle excepted.

body in length, basal joints slender, five upper joints broadly dilated, the seventh to the ninth gradually increasing in width. Thorax rather broader than long; sides rounded and converging from base to apex, posterior angles armed with an obtuse tooth, the anterior thickened; upper surface transversely convex, sides very strongly and obliquely deflexed in front, causing the anterior half of the thorax to appear subconic; disk impressed with irregular punctures. Elytra broadly oblong, convex, transversely excavated below the basilar space, the depression extending from just within the suture to the outer border, humeral callus slightly prominent; surface finely but not very closely punctured, the punctures arranged indistinctly in longitudinal rows; intermediate tibiæ strongly flexuose.

I only possess two specimens of this insect, both ♂ and do not know the ♀; the robust form, and broadly dilated antennæ, will separate it from any of its congeners with a similar form of face.

6. *Corynodes viridanus*, n. sp.

Elongatus, convexus, metallico-viridis, nitidus; thorace longitudine vix latiori, profunde minus remote punctato; elytris subfortiter punctatis, infra basin et intra callum humerale excavatis, punctis in striis bifariis longitudinalibus dispositis, interspatiis duobus intra marginem lateralem costatis; antennis nigro-æneis, clavâ paullo dilatatâ nigrâ; fronte tumidâ, rude punctatâ, margine antico obtuso, angulis lateralibus obsoletis, medio angulato-producto.

Long. 4½ lin.

Hab. Celebes.

Head very coarsely and deeply punctured, front swollen, impressed with the usual longitudinal groove, which becomes deeper near its end, anterior margin separated from the encarpæ and epistome by a deep sutural groove, obtuse, the lateral angles rounded, the middle produced into an angular lobe; epistome not longer than broad, subcampanulate, surface rugose-punctate; encarpæ cultriform, their upper portion thickened; antennæ scarcely more than half the length of the body, fusco-æneous, five upper joints narrowly dilated, purplish-black, apex of last joint obtuse. Thorax scarcely broader than long, sides nearly straight and parallel at the base, rounded and converging from behind the middle to the apex, hinder angles armed with a short acute tooth; above convex, subconic in front, the sides anteriorly being strongly and broadly deflexed; surface coarsely and deeply punc-

tured. Elytra oblong, transversely and broadly excavated below the basilar space; humeral callus prominent, bounded within by a longitudinal depression, the lower end of which joins the outer extremity of the transverse excavation; surface deeply but rather finely punctured, the punctures arranged in double longitudinal rows; the row nearest the suture, one on the outer border, and all the rest near the apex of the elytron, composed each of a single line of punctures; two interspaces on the outer margin distinctly costate; subhumeral tuberosity prominent. Outer edge of intermediate tibiæ obsoletely sinuate near the apex.

7. *Corynodes biseriatus*, Baly.

Platycorynus biseriatus, Baly, Desc. New Gen. and Spec. Phyt. p. 4.

Anguste oblongus aut subelongatus, convexus, viridi-metallicus; thorace transverso, subcrebre punctato; elytris cæruleo-purpureis, infra basin et intra humeros excavatis, subcrebre punctatis, punctis in striis bifariis dispositis, interspatiis ultimis apicem versus et disco exteriori obsolete elevatis, duobus prope marginem lateralem costatis; suturâ, costâ externâ ad apicem, tuberculo parvo intra callum humerale, calloque ipso viridi-metallicis; antennis corporis dimidio longioribus, clavâ leviter dilatatâ, obscure cæruleo-viridi; frontis margine inferiori obtuse angulato aut rotundato, utrinque plus minusve excavato, angulis lateralibus obtusis aut rotundatis.

Long. 5—5½ lin.

Hab. Macassar.

Face separated from the encarpæ and epistome by a deep sutural groove; anterior border broadly and obtusely rounded, more or less deeply sinuate on either side, the apex produced into a distinct lobe; surface coarsely and deeply punctured, frontal groove shallow; epistome rather broader than long, broadly campanulate, its apex broadly concave-emarginate; surface rugose-punctate; antennæ more than half the length of the body, five upper joints narrowly dilated, gradually increasing in width from the seventh to the tenth. Thorax rather broader at the base than long; sides obsoletely rounded at the extreme base, thence obliquely converging to the apex; above transversely convex, strongly deflexed obliquely on either side in front; surface somewhat closely punctured. Elytra oblong, convex, transversely excavated below the basilar space; humeral callus moderately prominent, bounded within by a deep longitudinal depression; on

the inner and lower edge of this depression, placed on the basilar space, is sometimes a small tubercle; surface strongly punctured, the punctures arranged (although somewhat irregularly) in numerous double longitudinal rows; alternate interspaces on the hinder and outer disks obsoletely thickened, two close to the lateral margin distinctly costate.

8. *Corynodes cupreatus*, n. sp.

Anguste oblongus, convexus, cupreus; thorace transverso, subcrebre punctato; elytris infra basin et intra callum humerale excavatis, subcrebre punctatis, punctis in striis bifariis confuse dispositis, interspatiis disco exteriori costatis; antennis dimidio corporis vix longioribus, clavâ anguste dilatatâ, nigro-purpureâ; frontis margine antico obtuse rotundato.

Long. $4\frac{1}{2}$ lin.

Hab. Macassar.

This species agrees so closely with *C. biseriatus* that a detailed description is unnecessary. I shall therefore only point out the differential characters between the two species; in *C. cupreatus* the anterior margin of the front is obtusely rounded, not produced in the middle, and not sinuate on either side; the antennæ are shorter, scarcely exceeding half the body in length; the thorax is more transverse, less narrowed in front, the sides being less obliquely deflexed; lastly, the elytra are much less regularly punctured, the double rows of punctures being less distinct and (on the middle disk) almost entirely obsolete. Both species may be known from their congeners by the transverse closely punctured thorax.

9. *Corynodes approximans*, Baly.

Platycorynus approximans, Baly, Desc. New Gen. and Spec. Phyt. p. 6.

Elongatus aut subelongatus ♂, oblongus ♀, læte viridi-æneus; thorace longitudine distincte latiori, antice rotundato-angustato, fortiter sed remote punctato; elytris infra basin et intra callum humerale profunde excavatis, tenuiter seriatim punctatis; antennis clavâ nigrâ, paullo dilatatâ; frontis margine antico obtuse angulato, utrinque excavato, medio producto.

Fœm.—Elytris prope marginem lateralem unicostatis.

Var. A. Corpus viridi-cæruleum aut cæruleum.

Var. B. Corpus metallico-olivaceum.

Long. $4\frac{1}{2}$ lin.

Hab. Sumatra; Pulo-Penang, collected by Mr. Lamb; Malacca (Mount Ophir).

Face coarsely but not closely punctured, separated from the encarpæ and epistome by a deep sutural groove, its anterior margin obtusely angulate, sinuate on either side; its surface, together with a triangular space above, depressed, coarsely rugose-punctate; epistome scarcely broader in front than long, sides moderately converging backwards, rounded towards the apex, the latter more or less depressed, broadly concave-emarginate; surface closely punctured; encarpæ broadly cultriform; surface smooth, impunctate, thickened and raised on the upper portion into an ill-defined tuberosity; antennæ nearly two-thirds the length of the body in the ♂, rather shorter in the ♀, five upper joints narrowly dilated, seventh joint rather narrower than the eighth. Thorax distinctly broader than long: sides nearly straight and parallel from the base nearly to the middle, thence obliquely rounded and converging to the apex; anterior angles thickened, posterior armed with a short tubercle; above transversely convex, sides strongly and obliquely deflexed in front, surface deeply but remotely punctured. Elytra broadly oblong, convex, deeply impressed below the basilar space and within the humeral callus, the latter prominent; surface finely punctured, the punctures arranged in uneven longitudinal rows; in the ♀, placed within and parallel to the lateral border, is a strongly raised costa, which, commencing just below the humeral callus, extends the whole length of the elytron to the sutural margin, and between this costa and the outer border is a slightly raised flexuose vitta.

The deep depression surrounding the outer and lower edges of the basilar space separates *C. approximans* from its allies. The ♀ of *C. costatus* (*post*, p. 110), which possesses the same character in a less degree, may be known from the ♀ of the present species by the close irregular punctation of the elytra, together with the much more strongly raised costa on the outer disk.

10. *Corynodes cupreus*, Baly.

Platycorynus cupreus, Baly, Desc. New Gen. and Spec. Phyt. p. 6.

Oblongo-ovatus, valde convexus, subtus purpureo-metallicus, supra nitido-cupreus, anguste purpureo- aut viridi-limbatus; thorace transverso, subcrebre punctato; elytris infra basin vix transversim excavatis, intra marginem exteriorem unicostatis, seriatim punctatis, striis confuse gemellato-dispositis, punctis disci antici infra humeros inordinatim dispositis, interspatiis nonnullis prope apicem subelevatis; antennis

fulvis, clavâ valde dilatatâ, nigrâ; frontis margine antico utrinque sinuato, medio late rotundato-producto, angulis lateralibus rotundatis.

Long. 3 lin.

Hab. Malay Peninsula (Tringanee).

Head coarsely punctured, front impressed with the usual longitudinal groove; anterior margin separated from the encarpæ and epistome by a deep sutural groove, deeply sinuate on either side, the middle portion produced into a broad rounded lobe, lateral angles distinct but rounded; epistome much broader than long, apex deeply concave-emarginate, sides converging backwards; surface closely punctured; encarpæ cultriform, their surfaces nearly plane; antennæ half the length of the body, six lower joints fulvous, more or less obscured with piceous, five outer joints broadly dilated, black, seventh and three following joints gradually increasing in width, eleventh obtuse. Thorax more than a third broader than long, sides nearly straight and parallel at the extreme base, thence rounded and converging to the apex, hinder angles acute; above transversely convex, sides strongly deflexed in front; surface somewhat coarsely punctured. Elytra less parallel than in the majority of the species, ovate-oblong, convex, slightly excavated transversely below the basilar space; humeral callus moderately prominent, bounded within by a longitudinal depression; finely but rather deeply punctured, the punctures arranged in longitudinal rows, which approximate in pairs; alternate interspaces towards the apex and on the outer disk thickened, one just within the lateral margin costate.

11. *Corynodes parvulus*, Baly.

Platycorynus parvulus, Baly, Desc. New Gen. and Spec. Phyt. p. 7.

Elongato-ovatus, convexus, subtus cupreo-violaceus, supra cupreus, nitidus; thorace transverso, subconico, profunde subcrebre punctato; elytris infra basin obsolete transversim impressis, punctato-striatis, striis gemellatis, interspatiis ante apicem elevatis, iis intra marginem exteriorem costatis; antennis fulvis, clavâ sat late dilatatâ, nigrâ; frontis margine antico utrinque sinuato, medio rotundato-producto, angulis lateralibus obtusis.

Long. 3 lin.

Hab. Singapore.

Face coarsely and deeply punctured, front impressed with a fine longitudinal groove; anterior margin separated from the encarpæ and epistome, sinuate on either side, middle produced into a broad rounded lobe, lateral angles obtuse; epistome distinctly broader than long, its apex broadly concave-emarginate, sides slightly converging backwards, surface longitudinally concave, deeply but not closely punctured; encarpæ broadly cultriform, upper half of the surface thickened; antennæ half the length of the body, five upper joints broadly dilated, apical joints obtuse. Thorax transverse, sides obliquely converging from base to apex, slightly rounded in front, hinder angles acute; above subconic, coarsely and somewhat closely punctured, rugose-punctate on the sides. Elytra oblong, convex, deeply impressed below the basilar space and within the humeral callus, the latter prominent; surface coarsely punctured, the punctures irregularly arranged in double longitudinal rows; interspaces on the hinder disk thickened, several on the outer disk costate.

Nearly allied to *C. cupreus;* narrower, more coarsely punctured, epistome longer, thorax subconic, elytra more distinctly costate on the outer disk.

12. *Corynodes costatus*, Baly.

Platycorynus costatus, Baly, Desc. New Gen. and Spec. Phyt. p. 2.

Subelongatus, convexus, viridi-metallicus, nitidus; antennarum clavâ nigrâ, modice dilatatâ; thorace transverso, tenuiter subremote punctato; elytris confuse subcrebre punctatis, utrisque intra marginem exteriorem bicostatis, costâ interiori valde elevatâ; scutello elytrorumque limbo inflexo purpureis; frontis margine antico rotundato, medio lobato.—*Fœm.*

Long. 6 lin.

Hab. Manilla.

Front separated from the epistome and encarpæ by a deep groove, its anterior margin rounded, produced in the middle into a round obtuse lobe; surface subremotely impressed with large deep punctures, medial line longitudinally grooved, the groove extending downwards from the vertex to the base of the anterior lobe; epistome triangular, its upper angle broadly truncate, anterior border obsoletely angulate-emarginate; encarpæ cultriform; antennæ more than half the length of the body, five upper joints

moderately dilated, gradually increasing in width from the seventh to the ninth. Thorax more than one-fourth broader than long; sides straight and slightly diverging from the base to beyond the middle, thence rounded and converging to the apex; the anterior angle thickened, posterior armed with a short tooth; above convex, sides deflexed in front, surface deeply and subremotely punctured. Elytra oblong, slightly dilated posteriorly, convex; basilar space slightly raised, entirely surrounded (its base excepted) by a broad, deep but ill-defined depression; humeral callus prominent; on the outer disk, parallel to the lateral border, are two longitudinal costæ; the inner one, entire and strongly elevated, extends from the humeral callus to the apex; the outer, less distinct, is only visible on the hinder half of the elytron; subhumeral tubercle indistinct; whole surface somewhat closely covered with rather coarse punctures, which have a tendency near the suture and on the outer disk to arrange themselves in longitudinal striæ.

I possess only a single specimen, a ♀; the ♂, which I do not know, is probably without costæ on the elytra.

13. *Corynodes Marshalli*, Baly.

Platycorynus Marshalli, Baly, Desc. New Gen. and Spec. Phyt. p. 2.

Oblongo-elongatus, convexus, nitido-purpureus, subtus cæruleo-viridis; thoracis dorso valde convexo, minute sed remote punctato; elytris infra basin modice et intra callum humerale depressis, tenuiter punctatis, punctis regulariter seriatim dispositis; antennis corporis longitudini fere æqualibus, basi gracilibus, æneis, clavâ nigrâ, modice dilatatâ, intus subserratâ; frontis margine inferiori trilobato, lobis lateralibus late rotundatis, lobo intermedio paullo producto. ♂.

Long. 4½ lin.

Hab. Gilolo.

Front separated from the epistome and encarpæ by a deeply sulcate groove; anterior border trilobate, medial lobe round, slightly but distinctly produced; surface very distantly punctured, impressed in the middle with a longitudinal groove, a slightly depressed triangular space in front (including the medial lobe) coarsely rugose-punctate; epistome campanuliform, its surface coarsely punctured, depressed at base and apex; encarpæ plane, broadly cultriform. Thorax scarcely broader than long; sides regularly rounded, slightly converging in front; above strongly

convex, finely and remotely punctured. Elytra broadly oblong, convex, obsoletely excavated below the basilar space and within the humeral callus, the latter moderately prominent; surface very finely punctured, the punctures arranged in longitudinal rows, minute, coarser near the lateral boarder, nearly obsolete on the hinder disk; intermediate tibiæ slightly emarginate.

Smaller and less robust than *C. robustus* (*ante*, p. 104), the antennæ longer and narrowly dilated, the elytra more finely punctured.

14. *Corynodes mutabilis*, Baly.

Platycorynus mutabilis, Baly, Desc. New Gen. and Spec. Phyt. p. 3.

Subelongatus, convexus, cæruleo-metallicus, subtus viridi-metallicus, nitidus; thorace longitudine vix latiori, antice conico, fortiter subremote punctato; elytris infra basin et intra callum humerale excavatis, intra marginem exteriorem elevato-vittatis, sat fortiter punctatis, punctis in striis bifariis dispositis; antennæ clavâ nigro-purpureâ, modice dilatatâ; frontis margine antico trilobato, lobo intermedio compresso, valde producto.

Mas.—Tibiis intermediis extus ante apicem modice sinuatis.

Long. $4\frac{1}{2}$ lin.

Hab. Menado.

Face deeply but somewhat distantly punctured, separated from the epistome and encarpæ by a deep sutural groove; anterior border deeply notched on either side, trilobate, the medial lobe narrow, compressed, strongly produced; a triangular space (from the apex of which a narrow groove runs upwards to the vertex), its base extending between the two lateral lobes, together with the surface of the central lobe, deeply depressed; epistome rather longer than broad, campanuliform, its apex emarginate, surface rugose-punctate; encarpæ broadly cultriform, smooth, impunctate, the upper half slightly thickened; antennæ nearly two thirds the length of the body in the ♂, five upper joints narrowly dilated, nearly equal in width. Thorax scarcely broader than long; sides nearly straight and parallel from the base to just behind the middle, thence slightly rounded and obliquely converging to the apex; posterior angles armed with a short tooth; above transversely convex, subconic anteriorly, the sides in front being strongly deflexed; surface deeply but remotely punctured. Elytra oblong, convex, deeply impressed below the basilar space and

within the humeral callus, the latter moderately prominent; surface somewhat closely covered with double rows of punctures; subhumeral tubercle distinct.

15. *Corynodes fulgurans*, Marshall.

Journ. Lin. Soc. Zool. viii. p. 40.

Elongatus, convexus, viridi-æneus, nitidissimus; thorace longitudine vix latiori, supra subconico, remote punctato; elytris infra basin subprofunde excavatis, subtenuiter punctatis, punctis in striis bifariis confuse dispositis, interspatiis prope marginem lateralem elevato-vittatis; antennis fusco-æneis, clavâ purpureâ nigrâ, modice dilatatâ; frontis margine antico trilobato, lobo intermedio depresso, paullo producto, non compresso.

Mas.—Tibiis intermediis extus leviter emarginatis.

Long. 4—4½ lin.

Hab. Ceram.

Head coarsely punctured, face impressed with a longitudinal groove, anterior border trilobate, separated from the encarpæ and epistome by a sutural groove, lobes rounded, medial produced, deflexed; epistome not broader than long, sides converging backwards; apex broadly truncate, concave-emarginate; surface rugose-punctate; encarpæ smooth, cultriform, the upper portion of the surface thickened; antennæ rather more than half the length of the body, five upper joints narrowly dilated, seventh joint narrower than the eighth. Thorax slightly broader than long; sides rounded and converging from base to apex; anterior angles acute, hinder angles armed with a short tooth; above subconic, sides strongly and obliquely deflexed in front; surface deeply but remotely punctured. Elytra oblong, parallel, moderately excavated in the middle below the basilar space; humeral callus moderately prominent, bounded within by a shallow longitudinal depression; surface not very strongly punctured, the punctures irregularly placed in double longitudinal rows; on the outer disk, just within the lateral margin, are two elevated costæ; subhumeral tubercle prominent. Outer edge of intermediate tibiæ slightly but distinctly sinuate.

16. *Corynodes propinquus*, n. sp.

Anguste-oblongus, convexus, rufo-fusco-æneus, violaceo-micans; thorace longitudine vix latiori, sat profunde sed remote

punctato ; elytris oblongis, infra basin et intra callum humerale excavatis, subtenuiter seriatim punctatis, striis indistincte bifariam dispositis ; antennis clavâ modice dilatatâ, nigrâ ; frontis margine antico obtuse angulato, medio in lobum obtusum paullo producto.

Mas.—Tibiis intermediis extus leviter sinuatis.

Long. 4 lin.

Hab. Waigiou.

Head very distantly punctured, front impressed with the usual longitudinal groove ; anterior border separated from the encarpæ and epistome by a deep sutural groove, very obtusely angled, obsoletely excavated on either side, the apex produced into an obtuse lobe ; epistome scarcely longer than broad, campanuliform ; encarpæ broadly cultriform, their surface smooth, nearly plane, not thickened above ; antennæ two-thirds the length of the body, five upper joints moderately dilated, nearly equal in width, black. Thorax slightly broader than long, sides rounded and converging from base to apex, more quickly rounded in front, nearly parallel at the base, hinder angles armed with a short tooth ; above subcylindrical, sides in front broadly and strongly deflexed ; surface deeply but remotely punctured. Elytra oblong, convex, not very strongly punctured, punctures irregularly arranged in longitudinal rows, which indistinctly approximate in pairs ; below the basilar space is a transverse excavation, which, commencing a short distance from the suture, terminates just below and within the humeral callus, its outer half much more deeply excavated than the inner portion ; humeral callus moderately thickened, bounded within by a longitudinal depression, which unites at its lower end with the transverse excavation.

Corynodes propinquus and the two preceding species, *mutabilis* and *fulgurans*, are very closely allied, and I formerly considered them as mere varieties of one species. *C. mutabilis* and *fulgurans* may be known from each other by the difference in colour and by the different form of the anterior border of the front ; in *C. fulgurans* also the punctuation of the elytra is finer, and the interspace between each double row of punctures broader ; in *C. propinquus* the form of the anterior edge of the front differs from that of either of the two preceding species, and the rows of punctures on the elytra are less distinctly arranged in pairs.

17. *Corynodes congener*, Baly.

Platycorynus congener, Baly, Desc. New Gen. and Spec. Phyt. p. 3.

Elongatus, valde convexus, nitido-purpureus; thorace conico, remote fortiter punctato; elytris infra basin transversim sulcatis, subcrebre punctatis, punctis indistincte seriatim dispositis; pedibus nitore æneo indutis; antennis clavâ sat dilatatâ; frontis margine inferiori trilobato, lobis lateralibus angulatis, lobo intermedio vix producto.

Long. 5 lin.

Hab. Manilla.

Front separated from the epistome and encarpæ by a deep groove, its anterior border trilobate, the medial lobe scarcely produced; surface subremotely and deeply punctured, impressed in the centre with a longitudinal groove, which extends downwards to the base of the medial lobe, the latter depressed, rugose; epistome rather longer than broad, triangular, its upper angle truncate, anterior border obsoletely angulate-emarginate; surface coarsely rugose-punctate; encarpæ narrowly cultriform; antennæ rather more than half the length of the body, five upper joints moderately dilated, the seventh scarcely narrower than the eighth. Thorax conic, nearly as broad at the base as long; sides nearly straight, converging from base to apex; upper surface deeply but remotely punctured. Elytra oblong, parallel, obsoletely dilated posteriorly, convex, slightly excavated transversely below the basilar space; humeral callus moderately prominent, bounded within by an indistinct longitudinal depression; surface somewhat closely and coarsely punctured, punctures arranged in numerous irregular longitudinal rows, which have a tendency on the hinder half of the inner disk to approximate in pairs.

The conical thorax will at once separate this species from any of the other allied forms.

18. *Corynodes longicornis*, Baly.

Platycorynus longicornis, Baly, Desc. New Gen. and Spec. Phyt. p. 2.

Elongatus aut subelongatus, convexus, viridi-metallicus, nitidus; antennis modice incrassatis, extrorsum nigro-purpureis; thorace subcylindrico, profunde subremote punctato; elytris infra basin transversim depressis, subcrebre punctatis, punctis seriatim dispositis; femoribus fortiter et crebre punctatis;

frontis margine inferiori trilobato, lobo intermedio distincte producto, lobis intermediis obtusis.

Mas.—Antennis corporis longitudini fere æqualibus, tibiis intermediis extus ad apicem distincte emarginatis.

Fœm.—Antennis longitudine dimidio corporis æqualibus, tibiis intermediis extus obsolete emarginatis.

Long. 4—5½ lin.

Hab. Manilla.

Epistome triangular, emarginate at the apex, separated from the encarpæ by a deep groove, its surface coarsely punctured; front remotely punctured, its anterior margin trilobate, the intermediate lobe semiovate, distinctly produced, its surface longitudinally depressed and excavated, forming the lower extremity of a deep longitudinal groove which runs downwards from the vertex; club of antennæ five-jointed, moderately dilated, the seventh to the ninth joints increasing in width, the tenth and eleventh equal in width to the ninth; encarpæ subtriangular. Thorax subquadrate, sides nearly straight and parallel from the base to beyond the middle, thence obliquely rounded and converging to the apex, posterior angles armed with a short obtuse tooth; upper surface subcylindrical, deflexed in front, subremotely or remotely punctured. Scutellum semiovate, smooth, impunctate. Elytra much broader than the thorax, sides parallel; above strongly convex, the humeral callus subprominent; basilar space bounded beneath by a semicircular depressed line, on the space itself are two or three broad short costæ; surface of the elytra covered with rather coarse punctures, which are arranged in numerous somewhat irregular longitudinal rows, which towards the apex approximate in pairs; on the disk and apex are several indistinct costæ; the basal border, together with the suture in front, greenish-blue.

The elongate form, coarser punctation of the elytra, and peculiar antennæ, will at once distinguish *C. longicornis* from all the other species which have a trilobate front.

19. *Corynodes Cumingii*, Baly.

Platycorynus Cumingii, Baly, Desc. New Gen. and Spec. Phyt. p. 3.

Oblongus, convexus, viridi-metallicus, purpureo-micans aut viridi-aureus, nitidus; thorace subconico, subremote punctato; elytris infra basin transversim excavatis, seriatim punctatis,

striis bifariam dispositis; antennis clavâ modice dilatatâ; frontis margine inferiori trilobato, lobo intermedio depresso, distincte producto, lobis lateralibus angulatis, apice obtusis.

Mas.—Antennis corpore paullo brevioribus, tibiis intermediis extus sinuatis.

Fœm.—Antennis corporis dimidio vix longioribus.

Long. 4—5½ lin.

Hab. Manilla. Collected by the late Mr. Hugh Cuming.

Front separated from the encarpæ and epistome by a distinct sutural groove; anterior border trilobate, medial lobe depressed, strongly produced, the two lateral angular; surface distinctly but not very closely punctured; in the middle is a large wedge-shaped depression, which extends from the base of the medial lobe nearly to the vertex; epistome wedge-shaped, scarcely longer than broad, truncate at the apex, surface finely rugose-punctate; basal half of antennæ slender, five outer joints obscure purple, moderately dilated, gradually increasing in width from the seventh to the tenth. Thorax subconic, rather longer than broad; sides nearly straight, converging from base to apex, hinder angles acute; surface subremotely punctured. Elytra broadly oblong, or oblong, convex, transversely excavated below the basilar space and also (but less deeply) within the humeral callus, the latter moderately thickened; the transverse depression extends almost entirely across the whole disk of the elytra; surface distinctly but not very closely punctured, the punctures arranged in regular longitudinal rows, which approximate, but not very distinctly, in pairs.

20. *Corynodes Waterhousii*, Baly.

Platycorynus Waterhousii, Baly, Desc. New Gen. and Spec. Phyt. p. 4.

Elongatus, parallelus, subcylindricus, metallico-cæruleus, subtus viridi-cæruleus, nitidus; thorace convexo, utrinque excavato, subremote excavato-punctato; elytris infra basin et intra callum humerale profunde impressis, sat fortiter subcrebre punctatis, punctis seriatim dispositis; antennis viridi-æneis, clavâ sat dilatatâ, obscure purpureâ; frontis margine inferiori trilobato, lobis lateralibus obtusis, lobo intermedio distincte producto.

Long. 4 lin.

Hab. Manilla.

Front remotely punctured, separated from the epistome and encarpæ by a deeply sulcate groove; anterior border trilobate, medial lobe semiovate, distinctly produced; its surface, together with an angular space at its base, is depressed below the general surface of the front, and from the apex of this depression the usual longitudinal groove runs upwards to the vertex; epistome longer than broad, subcuneiform, sides converging backwards, hinder margin angulate-emarginate; surface longitudinally concave, coarsely punctured, obliquely elevate-strigose on either side, the upper portion shelving gradually downwards towards the frontal groove; encarpæ broadly cultriform, their hinder half not elevated or produced, surface smooth, impressed in front with one or more large punctures; antennæ in the ♂ nearly three-fourths the length of the body, rather shorter in the ♀, five upper joints obscure purple, moderately but abruptly dilated. Thorax nearly one-fourth broader than long; sides rounded, scarcely converging in front; hinder angles armed with an acute tooth; upper surface convex, sides deflexed in front; very coarsely punctured, irregularly excavated on either side near the lateral margin. Elytra oblong, parallel, convex, basilar space almost entirely surrounded by a deep depression; humeral callus prominent; surface somewhat closely covered with coarse punctures, which continue distinct to the apex of the elytra, arranged in numerous longitudinal rows. Intermediate tibiæ in the ♂ straight, not notched on their outer edge.

21. *Corynodes Lorquinii*, n. sp.

Elongatus, convexus, viridi-cæruleus, purpureo-micans; thorace latitudini æquilongo, remote punctato; elytris infra basin et intra callum humerale excavatis, seriatim punctatis, punctis prope apicem minus fortiter impressis, interdum fere deletis; frontis margine antico trilobato, lobo intermedio producto; antennis clavâ modice dilatatâ, nigro-purpureâ; tibiis intermediis in utroque sexu extus leviter emarginatis.

Long. 4—4½ lin.

Hab. Celebes.

Head coarsely but not closely punctured, front impressed with the usual longitudinal groove; anterior border separated from the encarpæ and epistome by a sutural groove, trilobate, the medial lobe rounded, produced; epistome campanuliform, more or less closely punctured; encarpæ cultriform, smooth and shining, their

upper half thickened and slightly produced; antennæ more than half the length of the body, five upper joints moderately dilated, seventh and eighth gradually increasing in width. Thorax not longer than broad, sides straight and parallel at the base, thence rounded and converging to the apex, hinder angles armed with a short tooth; upper surface subconic, sides strongly deflexed in front. Elytra oblong, transversely excavated below the basilar space; humeral callus thickened, bounded within by a longitudinal depression, the lower end of which joins the outer extremity of the transverse excavation; surface somewhat finely but distinctly striate-punctate, the punctures much finer near the apex, and in some instances nearly obsolete; the interspace within the outer margin obsoletely thickened.

22. *Corynodes suaveolus*, Marshall.

Journ. Lin. Soc. Zool. viii. p. 42.

Elongatus, convexus, metallico-cæruleus, nitidus; thorace longitudine vix latiori, profunde subremote punctato; elytris fortiter seriatim punctatis, infra basin vix transversim depressis; antennis clavâ sat late dilatatâ, nigrâ; frontis margine antico trilobato, lobo intermedio producto.

Mas.—Tibiis intermediis rectis, extus ad apicem obsolete sinuatis.

Long. $3\frac{1}{2}$ lin.

Hab. Manilla.

Head coarsely but remotely punctured; front impressed with a deep longitudinal groove, which runs downwards as far as the anterior margin, the latter separated from the encarpæ and epistome by a deep sutural groove, trilobate, the medial lobe produced; epistome longer than broad, campanulate, rugose; encarpæ cultriform, smooth and impunctate, their upper half scarcely thickened; antennæ more than half the length of the body, five upper joints broadly dilated, black. Thorax slightly broader than long, sides nearly straight and parallel behind the middle, thence rounded and converging to the apex; above transversely convex, sides strongly deflexed in front, surface coarsely and deeply but subremotely punctured. Elytra oblong, parallel, obsoletely depressed below the basilar space (the depression visible only when viewed obliquely); humeral callus prominent, bounded within by a longitudinal depression; surface somewhat coarsely punctate-striate, the puncturing equally strong towards the apex of the

elytra, where the striæ have a tendency to coalesce in pairs and form a single irregular row of punctures; the interspaces on the hinder disk obsoletely thickened.

C. suaveolus is likely to be confounded with the two foregoing species; it may be known from either by the entire absence of the transverse depression below the basilar space on the elytron, and by the much more coarse and close punctuation of its thorax. *C. Waterhousii* differs from *C. Lorquinii* in having a broader thorax, and in the puncturing of its elytra being continued of equal strength to the apex; in *Lorquinii* the punctures are much finer on the hinder disk, and occasionally obsolete.

23. *Corynodes elegantulus*, Baly.

Platycorynus elegantulus, Baly, Desc. New Gen. and Spec. Phyt. p. 5.

Elongatus, convexus, purpureo-metallicus, nitidus, subtus viridi-tinctus; thorace punctato, punctis rotundatis; elytris aureis, viridi-marginatis, utrisque infra basin et intra callum humerale leviter excavatis, subcrebre striato-punctatis, striis confuse bifariam dispositis, interspatiis duobus intra marginem costatis; antennis clavâ paullo dilatatâ, intus obsolete serratâ; frontis margine antico trilobato, lobo intermedio depresso, vix producto.

Long. $3\frac{1}{2}$ lin.

Hab. Celebes.

Surface deeply but remotely punctured; front impressed with a longitudinal groove, which terminates anteriorly just before reaching the anterior margin; face entirely separated from the encarpæ and epistome by a deep groove, its anterior margin trilobate, the middle lobe small, slightly produced beyond the two lateral ones; epistome broadly wedge-shaped, its upper margin broadly truncate, concave, surface coarsely and closely punctured; encarpæ narrow, elongate, surface smooth; antennæ half the length of the body, five upper joints blueish-black, moderately dilated, and forming a narrow elongate club, six lower joints metallic-green, with a blueish tint. Thorax rather broader than long, sides nearly straight and parallel behind the middle, rounded and converging in front; hinder angles armed with a short obtuse tubercle; upper surface subcylindrical, convex, sides strongly deflexed in front, surface subremotely impressed with large round punctures. Elytra oblong, parallel, convex, moderately exca-

vated within the shoulders and below the basilar space, humeral callus moderately prominent; surface rather coarsely punctured, the punctures arranged in numerous longitudinal rows, which approximate in pairs; on the outer disk, running parallel to the lateral border, are two elevated vittæ. Subhumeral tubercle prominent.

24. *Corynodes cœlestinus*, Baly.

Platycorynus cœlestinus, Baly, Desc. New Gen. and Spec. Phyt. p. 6.

Subelongatus, valde convexus, nitidus, subtus viridi-cæruleus, supra læte cæruleus; thorace remote punctato; elytris infra basin modice transversim impressis, intra marginem exteriorem bicostatis, sat fortiter punctatis, punctis indistincte seriatim dispositis, striis prope apicem bifariis; antennis clavâ modice dilatatâ, obscure purpureâ; frontis margine inferiori trilobato.

Long. $3\frac{1}{2}$ lin.

Hab. Tringanee.

Front separated from the epistome and encarpæ by a broad deeply sulcate groove; surface somewhat distantly punctured, impressed with a longitudinal groove, which, commencing at the vertex, terminates anteriorly in a deep wedge-shaped rugose excavation; anterior margin trilobate, the two lateral lobes indistinct, broad and very obtuse, the medial one narrow, angulate, moderately produced; epistome broader than long, sides obliquely converging backwards, rounded posteriorly; surface distinctly punctured, not rugose, plane in front, the upper portion gradually shelving to join the frontal groove; encarpæ broadly cultriform, their surface smooth, the hinder portion raised and produced upwards into a distinct obtuse process; antennæ rather more than half the length of the body, five upper joints moderately dilated, black. Thorax one-fourth broader than long; sides rounded and converging from base to apex, above transversely convex, sides deflexed in front, coarsely but remotely punctured. Elytra broadly oblong, excavated below the basilar space; humeral callus moderately prominent, bounded within by an indistinct longitudinal depression; surface coarsely punctured, punctures arranged in longitudinal rows, which are irregular and ill-defined on the disk, but have a tendency to approximate in pairs near the apex of the elytron and on the outer disk; two alternate interspaces near the outer margin are distinctly costate.

25. *Corynodes cæruleatus*, n. sp.

Elongatus, convexus, subtus viridi-cyaneus, supra cæruleus; thorace transverso, subremote punctato; elytris seriatim punctatis, punctis in striis bifariis dispositis, infra basin et intra callum humerale distincte excavatis; antennis clavâ sat dilatatâ, nigrâ; frontis margine antico trilobato, lobo medio vix producto, compresso, angulato.

Long. 3 lin.

Hab. Pulo-Penang.

Head coarsely but distantly punctured, front impressed with a faint longitudinal groove; anterior margin separated from the encarpæ and epistome by a deep groove, trilobate, the lateral lobes rounded, the medial very slightly produced, compressed and angulate, its surface, together with a triangular space above, depressed; epistome scarcely longer than broad, sides rounded and converging backwards; surface gradually shelving off at its upper portion towards the apical groove, rugose-punctate; encarpæ cultriform, their upper half thickened; antennæ half the length of the body, five upper joints moderately dilated, seventh to the ninth gradually increasing in width, obscure cæruleous. Thorax one-fourth broader than long, sides rounded, converging in front, hinder angles produced into a short tubercle; above transversely convex, sides strongly deflexed in front; surface subremotely punctured. Elytra narrowly oblong, parallel, broadly rounded at the apex, convex, middle disk distinctly excavated below the basilar space; humeral callus subprominent, bounded within by a longitudinal depression; surface deeply but not coarsely punctured, the punctures arranged in numerous longitudinal rows, which approximate in pairs; these pairs frequently near the apex of the elytron become reduced to a single irregular row of punctures; on the outer disk, near the lateral border, are several slightly-elevated costæ.

Narrower, more parallel, and more finely punctured on the elytra than the preceding species; in other respects closely allied.

26. *Corynodes igneipennis*, n. sp.

Oblongus, convexus, metallico-cæruleus, viridi-tinctus, nitidus; thorace transverso, subremote tenuiter punctato; elytris cupreo-aureis, anguste viridi-limbatis, infra basin transversim depressis, tenuiter punctatis, punctis seriatim dispositis;

frontis margine antico trilobato, lobis lateralibus subacutis, lobo intermedio depresso, semiovato, paullo producto.

Long. $3\frac{1}{2}$—$3\frac{3}{4}$ lin.

Hab. Pulo-Penang.

Face coarsely punctured, impressed down the middle with a deep longitudinal groove, anterior border separated from the epistome and encarpæ by a deep sutural groove, trilobate, lateral lobes subacute, medial lobe slightly produced, its surface, together with a triangular space above, deeply depressed; epistome subquadrate, rather broader than long, sides slightly converging backwards, surface finely punctured; antennæ rather more than half the length of the body, five outer joints broadly dilated, obscure purple. Thorax transverse, one-third broader than long; sides nearly straight and parallel, rounded and converging in front, transversely convex, sides strongly deflexed in front; surface finely and somewhat remotely punctured. Elytra broadly oblong, finely punctured, the punctures arranged in regular rows; the transverse depression below the basilar space extends from just within the suture to the outer margin.

The present species is one of those brought to this country by Mr. Lamb.

27. *Corynodes ignitus*, Baly.

Platycorynus ignitus, Baly, Desc. New Gen. and Spec. Phyt. p. 6.

Elongato-oblongus, convexus, metallico-cæruleus, nitidus, supra aureus; thorace late conico, remote punctato; elytris infra basin transversim impressis, sat crebre punctatis, punctis seriatim dispositis, intra marginem exteriorem bicostatis, apicem versus vittulis nonnullis indistincte elevatis instructis, limbo inflexo purpureo; antennis clavâ sat dilatatâ, purpureâ; frontis margine antico trilobato, lobo intermedio producto, lateralibus fere obsoletis, extrorsum obliquis.

Long. 4 lin.

Hab. Pulo-Penang.

Front separated from the epistome and encarpæ by a deeply sulcate groove, anterior margin trilobate; the medial lobe produced, the two lateral indistinct, obtuse, their outer border oblique; surface deeply punctured, medial line impressed with a longitudinal groove, which terminates in front in a broad shallow triangular depression; epistome plane, metallic-green, coarsely rugose-punctate, slightly longer than broad, sides obliquely con-

verging backwards, hinder margin concave; encarpæ broadly cultriform, smooth, impunctate, their upper portion slightly raised and produced backwards into an obtuse process; antennæ scarcely more than half the length of the body, five upper joints broadly dilated, obscure purple. Thorax, at the base, nearly a fourth broader than long, sides rounded and converging from base to apex, lateral margin metallic-green, above subconic, remotely punctured. Elytra oblong, distinctly excavated below the basilar space; humeral callus prominent, bounded within by a distinct longitudinal groove; surface finely but deeply punctured, the punctures rather coarser on the outer disk, arranged in numerous longitudinal rows, which approximate in pairs on the hinder disk; interspaces towards the apex of the elytron thickened, rugose near the outer margin, where are several distinct costæ; inflexed margin metallic-green; apical segment of abdomen with a shallow fovea.

28. *Corynodes fraternus*, Baly.

Platycorynus fraternus, Baly, Desc. New Gen. and Spec. Phyt. p. 5.

Corynodes fraternus, Marsh. Journ. Lin. Soc. Zool. viii. p. 40.

Oblongus, valde convexus, viridi-æneus, subtus cæruleo-micans, nitidus; thorace remote sed profunde punctato; elytris infra basin transversim depressis, sat fortiter punctatis, punctis in striis bifariis confuse dispositis, interspatiis alternis elevatis, ad latera et apicem versus costatis; antennis obscure æneis, extrorsum nigris, clavâ sat dilatatâ; frontis margine antico trilobato, lobis lateralibus angulatis, lobo intermedio paullo producto, incrassato.

Long. 3 lin.

Hab. Sumatra, Java.

Front deeply but remotely punctured, impressed in the medial line with a longitudinal groove; the anterior margin separated from the epistome by a deep broad transverse groove, trilobate, the medial lobe thickened, compressed above, and distinctly produced beyond the two lateral; epistome broader than long, quadrangular, sides converging backwards, anterior margin obsoletely angulate-emarginate; apex slightly concave, surface somewhat closely punctured; encarpæ broadly cultriform, smooth, impunctate, upper portion thickened, elevated. Thorax one-fourth broader than long, sides rounded and converging from base to apex, above transversely convex, sides strongly deflexed

in front; surface coarsely but not closely punctured. Elytra oblong, parallel, convex, obsoletely excavated below the basilar space and within the humeral callus, which is moderately prominent; coarsely punctured, the punctures arranged in double longitudinal rows; alternate interspaces thickened, costate on the outer disk and towards the apex of the elytra.

29. *Corynodes perplexus*, Baly.

Platycorynus perplexus, Baly, Desc. New Gen. and Spec. Phyt. p. 5.

Late oblongus, convexus, cæruleo-viridis; thorace remote subtenuiter punctato; elytris viridi-æneis, viridi-cæruleo-limbatis, infra basin sat profunde excavatis, punctato-striatis, striis confuse bifariam dispositis, interspatiis apice elevatis, intra marginem exteriorem costatis; antennis clavâ sat valde dilatatâ, obscure purpureâ; frontis margine antico truncato, medio angulato-producto, utrinque sinuato.

Long. $3\frac{3}{4}$ lin.

Hab. Singapore.

This insect is so nearly allied to *C. fraternus*, (differing chiefly in the form of the lower border of the face,) that at first I had considerable hesitation in considering it as more than a local variety of that species; as, however, it comes from an entirely different locality, I have thought it better for the present to keep it distinct. The epistome, instead of being trilobate as in *C. fraternus*, is truncate, produced in the middle into a distinct lobe, the sides being each distinctly but slightly concave. The thorax is slightly broader and obsoletely excavated on either side the disk. In the form and sculpturing of the elytra it does not present any difference from *C. fraternus*.

30. *Corynodes Stevensi*, Baly.

Platycorynus Stevensi, Baly, Desc. New Gen. and Spec. Phyt. p. 5.

Oblongus, valde convexus, viridi-æneus, nitidus, pedibus aureo-micantibus; thorace subcrebre punctato; elytris infra basin vix transversim excavatis, depressis, fortiter punctatis, punctis in striis bifariis dispositis, interspatiis alternis apice et ad latera costatis, costis duabus infra callum humerale inter-

ruptis; antennis clavâ nigrâ, modice dilatatâ; frontis margine antico medio producto, utrinque subsinuato.

Long. 4 lin.

Hab. Tondano, Menado.

Head deeply punctured, impressed in the middle with a longitudinal groove, which runs downwards from the vertex nearly to the lower margin of the front, where it terminates in a triangular depression; the front separated from the epistome by a deep groove, its anterior border rounded, slightly produced in the middle, subsinuate on either side; epistome broader than long, sides gradually converging backwards, anterior border slightly but distinctly angulate-emarginate, upper margin broadly concave, surface rugose-punctate; encarpæ cupreo-aureous, narrowly cuneiform, their extreme upper surface slightly thickened; antennæ rather more than half the length of the body, five outer joints black, moderately dilated, the seventh to the ninth gradually increasing in width. Thorax transverse, nearly a third broader than long; sides rounded, slightly converging in front, hinder angles armed with a distinct tooth; above transversely convex, sides strongly deflexed in front; surface coarsely and rather closely punctured; on either side is a broad but ill-defined shallow excavated space. Elytra broadly oblong, convex, coarsely punctured, the puncturing arranged in double longitudinal rows, alternate interspaces on the outer disk, together with the apical portions of those on the inner disk, costate; two or more of the costæ below the humeral callus are interrupted and irregular; humeral callus prominent, bounded within by a longitudinal depression; the middle of each elytron, below the basilar space, broadly excavated.

31. *Corynodes fuscocæneus*, Baly.

Platycorynus fuscocæncus, Baly, Desc. New Gen. and Spec. Phyt. p. 6.

Elongatus, valde convexus, subcylindricus, fusco-æneus, nitidus; thorace conico, crebre subrugoso-punctato; elytris rude rugoso-punctatis, interspatiis elevato-reticulatis, ad latera et pone medium elevato-vittatis; antennis fulvis, clavâ sat late dilatatâ, purpureo-nigrâ; frontis margine antico obtuse angulato, angulis lateralibus distinctis.

Long. 3 lin.

Hab. Singapore.

Head coarsely punctured, front impressed in the middle with

a longitudinal groove; anterior margin very obtusely angled, lateral angles distinct, obtuse; epistome subquadrate, sides nearly straight, very slightly converging backwards, rounded and converging at the apex; apical border concave, surface rugose-punctate; encarpæ narrowly cultriform, their surfaces plane; antennæ nearly two-thirds the length of the body, five outer joints somewhat broadly dilated, purplish-black, the seventh to the ninth trigonate, gradually increasing in width. Thorax subconic, sides nearly straight and converging from base to apex, hinder angles furnished with a short obtuse tubercle; surface coarsely and closely punctured. Elytra narrowly oblong, subcylindrical, not excavated below the basilar space; humeral callus prominent; surface coarsely and closely punctured, punctures near the suture and on the hinder disk arranged in longitudinal striæ, interspaces strongly elevate-reticulate, costate on the hinder disk; on the outer disk are three longitudinal costæ, which are more or less interrupted by the reticulations of the general surface.

This species is at once known from its congeners by the rugosity of the upper surface of the body, greatly resembling in this respect certain species of *Colaspis*.

B. Apex of epistome continuous with the front.

32. *Corynodes gratiosus*, Baly.

Platycorynus gratiosus, Baly, Desc. New Gen. and Spec. Phyt. p. 7.

Corynodes gratiosus, Marsh. Journ. Lin. Soc. Zool. viii. p. 41.

Anguste oblongus aut subelongatus, convexus, saturate metallico-cæruleus, viridi vix micans; thorace conico-convexo, subremote irregulariter punctato; elytris viridi-cæruleis, cæruleo-limbatis, infra basin leviter transversim depressis, sat crebre punctatis, punctis confuse seriatim dispositis; antennis clavâ valde dilatatâ.

Long. 5—6 lin.

Hab. Tringanee, collected by Count de Castelnau; also Birmah and Cambodia.

Front swollen, obliquely depressed and excavated anteriorly; face separated from the encarpæ by a sutural groove, its anterior border rounded, slightly depressed and excavated, surface coarsely punctured; epistome broader than long, sides obliquely converging backwards, its apex very broadly truncate, surface closely punctured; encarpæ narrowly cultriform; an-

tennæ nearly two-thirds the length of the body in the ♂, rather shorter in the ♀, five outer joints broadly dilated. Thorax rather broader at the base than long, sides rounded and converging from base to apex, posterior angles armed with a short tooth; above transversely convex, subconic in front, irregularly punctured. Elytra oblong, convex, slightly excavated transversely below the basilar space; humeral callus moderately prominent, bounded within by an ill-defined shallow depression; surface coarsely and somewhat closely punctured, the punctures arranged in irregular longitudinal striæ.

II. Lower extremity of front continuous with the encarpæ and apex of epistome.

A. Club of antennæ five-jointed, claws appendiculated.

33. Corynodes Fabricii, Baly.

Platycorynus Fabricii, Baly, Desc. New Gen. and Spec. Phyt. p. 4.

Oblongus, valde convexus, robustus, viridi-metallicus, nitidus, subtus violaceo-micans, scutello violaceo, facie rugosâ; thorace remote punctato; elytris substriatim punctatis, infra basin obsolete transversim depressis; antennis obscure violaceis, clavâ valde dilatatâ, nigrâ.

Long. $4\frac{1}{2}$ lin.

Hab. Sumatra.

Face impressed with large foveolate punctures, continuous with the encarpæ and apex of epistome, its lower margin trilobate; epistome rather longer than broad, subcampanulate, surface coarsely rugose-punctate, sides separated from the encarpæ anteriorly by a fine sutural line, which gradually deepens posteriorly and terminates on the side of the apex of the epistome in a deep fovea; surface of encarpæ irregularly thickened, depressed above, point of junction with the front indicated by an ill-defined sutural line; antennæ nearly two-thirds the length of the body, five outer joints broadly dilated, black, the seventh to the ninth gradually increasing in width. Thorax nearly one-fourth broader than long, sides nearly straight and parallel from the base to before the middle, thence rounded and converging to the apex; above transversely convex, sides strongly deflexed in front, surface deeply and remotely punctured. Elytra broadly oblong, their apex broadly rounded, very convex, transversely impressed below the

basilar space, the depression nearly obsolete on the inner disk, broad and well marked below the humeral callus, which is prominent, bounded within by a longitudinal depression; surface finely but distinctly punctured, the punctures arranged in longitudinal rows, which approximate in pairs on the inner disk and towards the apex of the elytron. Outer edge of intermediate tibiæ sinuate towards the apex.

The green colour and the short robust form (which strongly resembles that of *C. robustus* and its allies), together with the finer and less close punctation of the surface, and the more acutely appendiculated claws, will at once separate this insect from *C. trilobatus*.

34. *Corynodes trilobatus*, n. sp. (Pl. V. fig. 7.)

Elongatus, convexus, saturate purpureus, nitidus; thorace subconico, irregulariter profunde punctato; elytris infra basin distincte transversim impressis, fortiter subcrebre punctatis, punctis seriatim dispositis, striis disci medio confusis; antennis clavâ late dilatatâ; mesosterno apice trilobato.

Long. 5—5½ lin.

Hab. Pulo-Penang.

Head coarsely punctured, front impressed in the middle with a longitudinal groove, anterior margin continuous with the encarpæ and apex of the epistome; encarpæ smooth, depressed; epistome not longer than broad, sides rounded and converging backwards, surface closely punctured; antennæ considerably more than half the length of the body, five upper joints broadly dilated, the seventh to the ninth trigonate, gradually increasing in width, the fifth and sixth compressed, trigonate. Thorax subconic, sides nearly straight and converging from base to apex; hinder angles acute, slightly produced; surface very deeply and irregularly punctured. Elytra oblong, parallel, convex, distinctly excavated below the basilar space; humeral callus prominent, bounded within by a longitudinal impression; surface rather coarsely punctured, the punctures closely arranged in numerous longitudinal rows, those on the middle disk irregular and less distinct. Apex of mesosternum trilobate.

Nearly allied to *C. Mouhoti* (mihi), from Siam, but easily distinguished from that species by the darker colour, narrower and more parallel form, and the trilobate apex of the mesosternum.

B. Club of antennæ six-jointed, claws bifid.

35. Corynodes bifasciatus, Oliv.

Eumolpus bifasciatus, Oliv. Entom vi. 900, pl. i. fig. 5.
Cryptocephalus undatus, Oliv. Encycl. Méth. vi. 614.
Eumolpus Gröndalii, Swartz, in Schönh. Syn. Ins. i. pt. 2, 235.

Elongatus aut subelongatus, convexus, læte purpureus, nitidus; thorace subconico, profunde subremote punctato; elytris subseriatim punctatis, rufo-aureis, utrisque apice, limbo inflexo, fasciâque latâ ante medium positâ, utrinque abbreviatâ, extrorsum postice ampliatâ, purpureis; antennis clavâ late dilatatâ, nigro-purpureâ.

Var. A. Elytris viridi-æneis, signis ut in typo.

Var. B. Elytris metallico-olivaceis, signis cyaneis.

Var. C. Elytrorum fasciâ postice non ampliatâ, antice ad humerum productâ, callum humerale complectente, maculam parvam rufo-auream includente.

Corynodes flosculus, Marsh. Journ. Lin. Soc. Zool. viii. p. 37.

Var. D. Viridi-cyaneus, elytris minus fortiter punctatis, rufo-aureis, utrisque suturâ basi, apice, plagâque magnâ subcruciformi ante medium positâ, cyaneis.

Long. 5—5½ lin.

Hab. Malacca, Siam, China. Var. A, B, and C, Siam. Var. D, Pulo-Penang.

Head very coarsely and irregularly punctured, more or less broadly impressed longitudinally on the front, which is continuous with the encarpæ and apex of epistome, excavated on either side at the apex of the latter; surface of encarpæ irregular, deeply punctured; epistome semiovate, somewhat variable in width, rather more finely punctured than the front; antennæ more than half the length of the body, six outer joints broadly dilated, the sixth to the ninth gradually increasing in width, the fourth and fifth slightly compressed, the latter subtrigonate. Thorax subconic, sides nearly straight and converging forwards, more quickly at the extreme apex; surface very deeply and irregularly punctured. Elytra without transverse depression at the base, punctured in a similar manner to *C. peregrinus* (*post*, p. 132); the coloration usually constant, occasionally varying; the apical patch, which occupies nearly the hinder third of the elytron, and

together with its fellow forms an angle on the suture, remains in all the individuals I have hitherto seen without change, but the anterior patch occasionally varies very considerably; in some specimens it unites at the suture, and sends a narrow line upwards to the scutellum; in others, as Var. C, it is not produced posteriorly, the hinder border forming a transverse straight line, whilst anteriorly it extends upwards to the base, entirely covering the shoulder; in Var. D it becomes smaller and irregularly cruciform.

36. *Corynodes indigaceus*, Chevr.

Rev. Zool. 1841, p. 228.

Corynodes Hopei, Baly, Desc. New Gen. and Spec. Phyt. p. 7.

Subelongatus, robustus, valde convexus, obscure metallico-viridis, aut viridi-cæruleus, nitidus; thorace subconico, disco punctis magnis subremotis purpureis hic illic irregulariter congregatis impresso; elytris subcrebre irregulariter punctato-striatis, infra basin obsolete transversim impressis; antennis clavâ modice dilatatâ, obscure cæruleo-nigrâ.

Long. 6 lin.

Hab. Philippine Islands.

Front very coarsely rugose-punctate, its lower edge continuous with the encarpæ and apex of epistome; surface of encarpæ irregular, impressed with several large punctures; epistome wedge-shaped, more finely punctured than the front; on either side, just above its apex, is a large deep irregular fovea; antennæ more than half the length of the body, six outer joints broadly dilated, the sixth to the ninth gradually increasing in width, apex of apical joint obtusely angulate, extreme apex truncate, the fourth and fifth joints compressed, the latter equal in length to the sixth, narrowly dilated from base to apex. Thorax scarcely longer than broad at the base, subconic, sides slightly rounded and converging from base to apex, hinder angles acute; surface deeply and remotely punctured. Elytra narrowly oblong or oblong, parallel, convex, distinctly excavated below the basilar space; humeral callus moderately prominent, bounded within by a longitudinal excavation; surface somewhat finely but deeply punctured, the punctures closely arranged in numerous longitudinal rows.

Very nearly allied to *C. peregrinus* (p. 132); it differs externally slightly in colour, most of the specimens being of a greenish blue, individuals without any green tint being apparently rare. The thorax is more distantly punctured, and the fifth joint of the antennæ,

although compressed and dilated from base to apex, is narrower and less distinctly triangular than in *C. peregrinus;* the joints of the club are rather longer and less transverse. The principal differential character, however, exists in the depression below the basilar space of the elytra, which is very distinct and well-defined in the present species, but nearly obsolete or entirely absent in *peregrinus* and allied species.

37. *Corynodes peregrinus*, Fuessly.

Cryptocephalus peregrinus, Fues. Arch. Ins. p. 63, tab. xxiii. fig. 25.
Eumolpus cyaneus, Oliv. Ent. vi. p. 899, pl. i. fig. 4, a, b.

Elongato-ovatus aut subelongatus, convexus, metallico-cæruleus, nitidus; thorace subconico, profunde subremote punctato; elytris infra basin non aut vix impressis, fortiter subcrebre punctatis, punctis seriatim, disci medio confuse dispositis; antennis clavâ sat valde dilatatâ, nigro-purpureâ.

Var. A. Viridi-cæruleus.

Long. $4\frac{1}{2}$—6 lin.

Hab. Malacca (Tringanee), Siam, India.

Head very coarsely and deeply punctured, front rugose and irregularly excavated at its lower border, which is continuous with the encarpæ and apex of epistome; surface of encarpæ irregular, impressed with a few large punctures; epistome wedge-shaped, more closely and finely punctured than the front; antennæ more than half the length of the body, six outer joints broadly dilated, the sixth to the eighth gradually increasing in width; the fourth and fifth joints also compressed, more or less trigonate. Thorax subconic, scarcely broader at the base than long, sides straight and slightly converging forwards, rounded, and more quickly converging before the middle, hinder angles acute; surface very coarsely and deeply punctured. Elytra coarsely and closely punctured, punctures near the suture and on the outer border arranged in longitudinal rows, those on the middle disk placed without order; the transverse excavation below the basilar space is either ill-defined or entirely absent; humeral callus scarcely prominent.

The coarser punctation of the elytra, together with the more parallel form, will separate this species from *C. antennatus;* the absence of the transverse depression on the elytra from *C. indigaceus;* the thorax is usually more closely punctured than in either species.

38. *Corynodes antennatus*, Fabr.

Eumolpus antennatus, Fabr. Syst. El. i. p. 419; Oliv. Ent. vi. p. 900, pl. i. fig. 6.

Oblongo-ovatus, convexus, niger, nitidus; fronte profunde punctatâ; thorace subconico, hic illic profunde punctato; elytris tenuiter punctatis.

Var. A. Viridi-cæruleus, aut cyaneus, elytris concoloribus, aut viridi-æneis aut aureis.

Eumolpus cyanicollis, Oliv. Ent. vi. p. 902, pl. i. fig. 9.

Corynodes speculum, Marsh. Journ. Lin. Soc. Zool. viii. p. 43.

Var. B. Obscure cyaneus, nitidus, corpore subtus et pedibus nigro-cyaneis.

Corynodes ampullatus, Marsh. *ibid.* p. 41.

Long. 5 lin.

Hab. Java, India.

Face continuous in a single piece with the encarpæ and epistome, deeply impressed with large round punctures; epistome subtrigonate, separated from the face (the extreme apex excepted) by a well-defined sutural line; immediately above the epistome is a deep transverse excavation; surface of encarpæ irregular; antennæ more than half the length of the body, six outer joints broadly dilated, the sixth to the eighth trigonate, gradually increasing in width; the fourth and fifth slightly compressed, increasing in breadth from base to apex, subtrigonate. Thorax subconic, sides nearly straight and converging from base to apex; surface remotely impressed with large deep round punctures, interspaces very minutely punctured. Elytra oblong, convex, the outer disk below the basilar space depressed, transverse, subbasilar excavation obsolete; surface finely but distinctly punctured, punctures near the suture arranged in longitudinal rows, irregularly placed over the rest of the surface.

C. antennatus may be at once known from *C. peregrinus* by its more oval form, and by the much finer punctation of the elytra.

Genus Chrysochus, Redtenb.

Faun. Aust. p. 558.

Corpus elongatum aut oblongum, convexum aut subcylindricum, plerumque metallicum. *Caput* perpendiculare, thorace immersum; *antennis* filiformibus aut subfiliformibus, articulo

secundo brevi, articulis exterioribus paullo compressis; *oculis* intus emarginatis, supra sulco profundo marginatis; *epistomate* cum fronte continuo, lineâ suturali apice obsoletâ; *encarpis* distinctis; *mento* angulato, inciso. *Thorax* marginatus, supra convexus. *Elytra* parallela, convexa, infra basin transversim depressa aut excavata, inordinatim aut seriatim punctata. *Pedes* robusti; *femoribus* incrassatis; *tibiis* intermediis extus ad apicem non emarginatis; *unguiculis* bifidis aut dentatis. *Prosternum* utrinque ab episterno sulco profundo separatum; *episternis* anticis trigonatis.

The species of the genus *Chrysochus* divide themselves into two sections: the 1st elongate and subcylindrical, represented by *Chrysochus pretiosus* and other allied species; the 2nd broader and oblong, the exponents of this section being *Chrysochus pulcher* and an allied species from Siam.

1. *Chrysochus pulcher*, Baly. (Pl. V. fig. 4.)

Desc. New Gen. and Spec. Phyt. p. 1.

Oblongus, valde convexus, cæruleo-viridis, nitidus; capite profunde punctato, læte purpureo, oculorum margine interiore viridi-metallico; antennis nigris, articulis basalibus fulvis; thorace aureo, subgloboso, profunde punctato; elytris purpureis, fortiter punctatis, punctis seriatim dispositis.

Long. $3\frac{1}{2}$—4 lin.

Hab. Malay Peninsula (Tringanee).

Head coarsely but not closely punctured; front impressed with a deep longitudinal groove; jaws and labrum black; antennæ half the length of the body, the basal joint metallic-green, its apex, together with the second and two following joints, fulvous, the remaining joints very slightly compressed, black. Thorax transverse, sides moderately rounded, nearly straight and parallel at the base, scarcely converging in front; above subcylindrical, deeply punctured. Elytra broadly oblong, convex, scarcely depressed in the middle below the basilar space, deeply punctured, the punctures arranged in numerous longitudinal rows, interspaces on the subbasilar depression thickened, and forming coarse transverse strigæ.

Genus Colaspoides, Laporte.

Silber. Rev. Entom. t. i. p. 20; Baly, Ent. Mo. Mag. i. p. 134.

Corpus oblongo-ovatum aut ovatum, valde convexum, metallicum aut non metallicum. *Caput* breve, thorace usque ad dimidiam

partem oculorum insertum; *oculis* intus emarginatis, supra sulco distincto plerumque marginatis; *antennis* filiformibus aut subfiliformibus; *mento* quadrato-emarginato. *Thorax* marginatus, transversus. *Elytra* thorace paullo aut vix latiora, confuse aut seriatim punctata. *Pedes* robusti; *femoribus* interdum incrassatis, plerumque muticis, rarius dente acuto armatis; *unguiculis* appendiculatis. *Prosternum* planum, utrinque ab episterno antico sulco suturali separatum.

The Asiatic species of *Colaspoides*, so far as I at present know them, have the punctures on their elytra arranged in more or less regular longitudinal rows, whilst in many of the American species they are placed without order on the surface.

I. Anterior and hinder pairs of thighs armed beneath with a short acute tooth; intermediate pair simple.

1. *Colaspoides varians*, n. sp.

Elongata aut subelongata, convexa, curprea, nitida, subtus viridi-tincta; labro antennisque fulvis, his filiformibus, gracilibus, extrorsum fuscis; thorace distincte sed minus crebre punctato, anguste viridi-marginato; elytris fortiter seriatim punctatis, disco exteriori et apicem versus costatis, suturâ limboque inflexo viridibus.

Var. A. Elytris totis cupreis.

Var. B. Corpore metallico-cæruleo.

Var. C. Corpore viridi-æneo.

Long. $3\frac{1}{2}$ lin.

Hab. Java.

Head distantly punctured; epistome broadly semiovate, not separated at its apex from the face, anterior border broadly concave-emarginate; antennæ three-fourths the length of the body, six or seven lower joints fulvous, the rest fuscous. Thorax twice as broad as long, sides nearly straight and parallel behind the middle, thence rounded and converging to the apex; upper surface finely and distinctly but not very closely punctured. Elytra oblong, parallel, convex, very indistinctly excavated below the basilar space, coarsely punctured, the punctures irregularly arranged in double longitudinal rows, which contract near the suture and on the outer disk, and become single, the two nearest the suture very regular, each formed of a single series of regularly-placed punctures; the interspaces towards the apex of the elytron thickened, convex and more or less costate; on the

outer disk are four or five elevated costæ, which vary in height, and in some specimens are almost entirely obsolete. Anterior thighs somewhat thicker than the others, each furnished beneath with a short tooth; hinder pair armed with a strong tooth.

2. *Colaspoides regularis*, n. sp.

Oblongo-ovata, convexa, subtus piceo-ænea, viridi-tincta, supra viridi-ænea, nitida; labro antennisque fulvis, his extrorsum fuscis; elytris fortiter striato-punctatis, striis ad latus et apicem versus subsulcatis, interspatiis disco exteriori et pone medium subcostatis.

Long. 4 lin.

Hab. Borneo (Sarawak).

Head irregularly but finely and somewhat distantly punctured, front impressed with a longitudinal groove, which gradually deepens as it approaches the apex of the epistome; the latter distinctly separated from the face, the sutural line being visible to the apex, triangular, sides rounded and converging backwards, anterior border broadly concave-emarginate; antennæ rather more than half the length of the body, filiform, scarcely thickened towards the apex, fulvous, more or less stained with fuscous above, two upper joints entirely fuscous. Thorax nearly three times as broad as long, sides rounded, converging in front; upper surface rather deeply and somewhat closely punctured. Elytra broadly oblong, not excavated below the basilar space, rather closely and strongly punctate-striate, the punctures (with few exceptions) regularly placed in a single line on each stria; striæ on the outer disk and hinder part of the elytron subsulcate, the interspaces on the same portions of the surface being convex and subcostate.

3. *Colaspoides modesta*, n. sp.

Anguste oblonga, convexa, fulva, subnitida; antennis gracilibus, filiformibus, apice fuscis; elytris subcrebre seriatim punctatis.

Long. $2\frac{3}{4}$ lin.

Hab. Borneo (Sarawak).

Head smooth, very distantly and minutely punctured; epistome semiovate, its apical margin obsolete, anterior border concave-emarginate; antennæ about three-fourths the length of the body, slender, apex of the tenth and the whole of the eleventh joint

fuscous. Thorax transverse, sides nearly straight and parallel at the base, thence obliquely rounded and converging to the apex; surface very finely granulose, remotely punctured. Elytra oblong, parallel, convex, obsoletely impressed below the basilar space; somewhat strongly and closely punctured, the puncturing towards the apex scarcely finer than in front, arranged in numerous longitudinal rows, regular near the sutural and outer margins, less regular on the middle disk; towards the apex of the elytron are some indistinctly-raised costæ.

4. *Colaspoides inornata*, n. sp.

Oblonga, convexa, obscure fulva, nitida; mandibulis antennarumque apicibus nigris; thorace distincte sed subremote punctato; elytris sat fortiter punctatis, punctis in striis bifariis confuse dispositis, striis apicem versus uniseriatis, interspatiis ad apicem elevatis, subcostatis.

Long. $2\frac{1}{2}$ lin.

Hab. Penang.

Head finely and distantly punctured; epistome slightly broader than long, sides rounded and converging backwards, apical border obsolete, anterior margin produced into two short very obtuse teeth, the space between them concave-emarginate, surface more closely and strongly punctured than the front; antennæ slender, filiform, the ninth and following joints black. Thorax rather darker than the elytra, more than twice as broad as long, sides nearly straight and parallel at the base, thence obliquely rounded and narrowed to the apex. Elytra nearly parallel, convex, not impressed below the basilar space; coarsely punctured, the punctures irregularly placed in double longitudinal rows, which become single and regular towards the apex of the elytron.

5. *Colaspoides biplagiata*, n. sp.

Oblongo-ovata, rufo-fulva, nitida; elytris nigris, subcrebre punctatis, utrisque plagâ transversâ rufo-fulvâ prope medium positâ ornatis.

Long. $2\frac{3}{4}$ lin.

Hab. Borneo (Sarawak).

Head smooth, remotely and minutely punctured; epistome semiovate, continuous at its apex with the front, the apical margin

obsolete, anterior border concave-emarginate; orbital groove indistinct; antennæ very slender, filiform, nearly equal to the body in length, fulvous. Thorax transverse, sides rounded, converging in front; surface minutely granulose, remotely punctured. Elytra oblong, black, subnitidous, convex, not excavated below the basilar space; rather strongly and closely punctured, the punctures arranged in numerous slightly irregular longitudinal rows, the puncturing near the apex finer than in front; on each elytron, near the middle, is a slightly oblique transverse rufo-fulvous patch. Claws piceous.

II. Hinder thighs simple; anterior pair either simple or armed beneath with a small tooth.

6. *Colaspoides cuprea*, n. sp.

Elongata ♂, oblonga ♀, parallela, cuprea, nitida, subtus piceo-cuprea; antennis nigris, basi fulvo-piceis; thorace subcrebre punctato; elytris intra marginem lateralem longitudinaliter excavatis, infra basin distincte transversim impressis, subtenuiter et subseriatim punctatis, interspatiis planis.

Long. 3—4 lin.

Hab. Pulo-Penang.

Head irregularly but not closely punctured; epistome longer than broad, sides converging backwards, apical margin broadly obsolete, anterior border concave-emarginate; labrum, palpi and three or four basal joints of the antennæ obscure fulvous, the latter more or less stained above with cupreous; antennæ filiform, three-fourths the length of the body. Thorax rather more than twice as broad as long, sides nearly straight and parallel behind the middle, thence rounded and converging to the apex; surface finely but distinctly punctured, the punctures shallow. Elytra parallel, convex, distinctly impressed below the basilar space, and also within the humeral callus, which is moderately prominent; just within the lateral margin is a deep but ill-defined longitudinal excavation; surface finely but distinctly punctured, the punctures irregularly placed in double rows, towards the apex these rows become single, the one next the suture being very regular, the others confused; interspaces plane, impunctate. Thighs unarmed.

7. *Colaspoides simillima*, n. sp.

Anguste oblonga aut oblonga, parallela, convexa, cuprea, nitida, subtus piceo-cuprea; antennis nigris, his basi, labro palpisque obscure fulvis; thorace subcrebre punctato; elytris intra marginem lateralem longitudinaliter excavatis, infra basin transversim excavatis, subfortiter subseriatim punctatis, interspatiis planis.

Var. A. Elytrorum striis minus distinctis.

Long. 3 lin.

Hab. Malacca, Tringanee. Var. A, Singapore.

Smaller and less elongate than *C. cuprea;* epistome shorter and broader, its anterior border produced into two very short obtuse lobes, the space between them concave-emarginate; head more coarsely punctured; elytra much more coarsely and deeply punctured, the striæ near the apex of the elytra less regular.

8. *Colaspoides robusta*, n. sp.

Late ovata, valde convexa, purpurea, nitida, subtus viridimicans; antennis gracilibus, filiformibus, nigro-purpureis; thorace subcrebre punctato; elytris fortiter subcrebre subseriatim punctatis.

Long. 3 lin.

Hab. Borneo (Sarawak).

Head short, coarsely punctured, its lower portion rugose, the puncturing more distant on the vertex; front impressed with a deep longitudinal groove, which terminates before reaching the apex of the epistome; epistome broader than long, sides converging backwards and slightly rounded, apex depressed, not separated from the face, anterior border nearly straight; antennæ slender, filiform, longer than the body, the two lower joints obscure fulvous beneath. Thorax more than twice as broad as long, sides nearly straight and parallel behind the middle, thence rounded and converging to the apex; upper surface rather closely punctured, sides strongly deflexed in front. Elytra scarcely broader than the thorax, sides parallel, apex regularly rounded; surface not excavated below the basilar space, covered with numerous irregular rows of deep punctures; interspaces near the apex thickened, subcostate. Thighs unarmed.

9. *Colaspoides fuscoænea*, n. sp.

Oblongo-ovata, pallide fulvo-picea, æneo-micans, nitida; pedibus antennisque obscure fulvis, his gracilibus, apice fuscis; thorace subremote punctato; elytris fortiter seriatim punctatis, interspatiis apicem versus costatis, punctis disco exteriori confuse dispositis, interspatiis irregulariter elevato-reticulatis.

Long. 2 lin.

Hab. Borneo.

Head very distantly and finely punctured; epistome campanuliform, not separated at its apex from the face, anterior border produced into two short broad obtuse teeth, the space between the teeth concave-emarginate, surface smooth, impressed on the upper portion with a few large punctures; along the upper border of the encarpæ is a single row of distinct punctures; supra-ocular groove broad, rugose-punctate; antennæ slender, filiform, equal to the body in length, five or six outer joints fuscous. Thorax more deeply stained with metallic green than the elytra, transverse, sides very slightly rounded and nearly parallel behind the middle, thence obliquely converging and rounded to the apex; surface coarsely but subremotely punctured. Elytra oblong, convex, very slightly excavated below the basilar space; humeral callus moderately prominent, bounded within by a longitudinal groove; surface coarsely punctured, the punctures arranged in double rows at the base and on the inner disk, each pair contracting on the hinder disk into a single irregular row, the interspaces towards the apex costate; on the outer disk the puncturing is confused, and the interspaces thickened and irregularly reticulate. Apex of anal segment of abdomen concave-emarginate. Anterior pair of thighs thicker than the others, armed beneath with a small tooth.

10. *Colaspoides micans*, n. sp.

Anguste oblonga, convexa, picea, nitida, æneo-violaceo-micans; pedibus antennisque fulvis, his extrorsum nigris; elytris fortiter punctatis, punctis in striis bifariis dispositis, interspatiis ad apicem et disco exteriori costatis.

Long. 2 lin.

Hab. Celebes.

Head smooth, impunctate; epistome wedge-shaped, sides straight and converging backwards, apical border obsolete, middle of anterior border concave-emarginate; antennæ nearly

the length of the body, filiform, five upper joints fuscous. Thorax more than twice as broad as long, sides rounded, converging at the base, obliquely converging in front, surface irregularly but not very closely punctured. Elytra oblong, convex, indistinctly excavated below the basilar space, coarsely punctured, the punctures arranged in numerous double longitudinal rows; on the hinder third of the elytron the rows become less numerous, single and sulcate, with the interspaces thickened and costate; on the outer disk are also several distinct costæ. Legs pale fulvous; thighs simple.

Nearly allied to *C. fuscoænea*, but separated from that insect by the broader thorax with more rounded sides, the paler legs, and the more regular punctation and distinctly-raised costæ on the hinder third of the elytron.

11. *Colaspoides puncticeps*, n. sp.

Oblonga, convexa, fusco-cuprea, supra cuprea, nitida; antennis fulvis, extrorsum obscurioribus; epistomate profunde punctato; thorace subfortiter punctato; elytris subcrebre fortiter punctatis, punctis subseriatim dispositis.

Long. 2 lin.

Hab. Singapore.

Head triangular, front smooth, impressed in the middle with a shallow fovea, very minutely and distantly punctured, lower portion near the epistome coarsely and deeply punctured; epistome triangular, the sides nearly straight, converging backwards, the apex not separated from the face; anterior border produced into two short obtuse lobes, the space between them concave; surface impressed on its upper half with large deep punctures; antennæ shorter than the body, filiform. Thorax more than twice as broad as long, sides rounded, converging in front, surface deeply but not coarsely punctured, sides moderately deflexed in front. Elytra oblong, scarcely broader than the thorax, sides nearly parallel; convex, not excavated below the basilar space; surface somewhat closely covered with coarse deep punctures, arranged in numerous irregular longitudinal rows, in the middle the rows indistinctly approximate in pairs, but towards the apex of the elytron each double row contracts into a single irregular sulcate stria of punctures; interspaces near the apex thickened, subcostate; on the disk of each elytron are also to be seen three or four indistinct costæ. Anterior pair of thighs armed beneath with a very small tooth.

12. *Colaspoides viridimarginata*, n. sp.

Late oblonga, convexa, subtus rufo-picea, æneo-micans, supra viridi-ænea; antennis fulvis, extrorsum nigris; elytris subcrebre irregulariter seriatim punctatis, roseo-æneis, anguste viridi-limbatis.

Long. 2 lin.

Hab. Borneo.

Head coarsely but distantly punctured; epistome triangular, sides nearly straight and converging, apical suture obsolete; anterior margin armed with two short obtuse teeth; surface oblique and nearly impunctate on its lower half, very coarsely and somewhat closely punctured on its upper portion, supra-orbital groove distinct, longitudinally strigose; encarpæ and lower portions of epistome golden-æneous; antennæ filiform, equal to the body in length, five lower joints, together with the labrum, fulvous. Thorax more than twice as broad as long, sides rounded, converging in front; transversely convex, sides strongly deflexed in front, surface distinctly punctured. Elytra not much broader than the thorax, somewhat closely covered with irregular rows of punctures; just within the outer border is a narrow slightly raised costa. Anterior pair of thighs armed beneath with a very short indistinct tooth.

13. *Colaspoides insignis*, n. sp.

Late ovata, convexa, subtus picea, nitida, supra viridi-ænea; elytris roseo-æneis, viridi-limbatis, minus fortiter subseriatim punctatis; femoribus (apice excepto) obscure rufis; antennis basi fulvis.

Long. 2—$2\frac{1}{2}$ lin.

Hab. Borneo (Sarawak).

Vertex nearly impunctate; supra-orbital groove moderately impressed, coarsely punctured; epistome subcampanuliform, apical border obsolete; anterior margin armed with two short obtuse teeth, the space between them concave; surface coarsely punctured; antennæ filiform, slightly thickened towards the apex, five lower joints fulvous. Thorax more than twice as broad as long; sides rounded and converging from base to apex, more obliquely converging before the middle; surface finely but distinctly punctured. Elytra not depressed below the basilar space, finely but deeply punctured, the punctures arranged very indistinctly in numerous longitudinal rows, which have a tendency

towards the apex (where they are fewer in number) to approximate in pairs; interspaces plane. Thighs simple.

14. *Colaspoides gratiosa*, Baly.

Colasposoma gratiosum, Baly, Desc. New Gen. and Spec. Phyt. p. 15.

Oblongo-ovata, convexa, cupreo-aurea, violaceo-micans, nitida; thoracis plagâ apicali angulisque posticis, elytrorumque suturâ prope apicem, lineâ marginali, fasciisque duabus communibus, viridi-cæruleis; subtus fusco-ænea, violaceo-micans; labro pedibusque pallide rufo-piceis; antennis fulvis, extrorsum nigris.

Long. $2\frac{1}{2}$ lin.

Hab. Singapore.

Head distantly punctured, epistome much broader than long, sides rounded and converging backwards, apical border obsolete, middle portion of the anterior margin broadly subangulate-emarginate, surface more coarsely and closely punctured than the front; antennæ filiform, six outer joints black. Thorax nearly three times as broad as long; sides nearly straight and parallel at the base, thence obliquely rounded and converging to the apex; above transversely convex, sides strongly deflexed in front, surface coarsely and irregularly punctured, the coarser punctures being intermixed with finer impressions. Elytra broadly oblong, convex, obsoletely excavated below the basilar space, coarsely punctured, the punctures irregularly arranged in numerous longitudinal rows; towards the apex the interspaces near the suture and on the outer border are very slightly thickened and form indistinct costæ; two broad metallic-green transverse bands, placed one at the base, the other just below the middle of the disk. Thighs simple.

15. *Colaspoides elegans*, n. sp.

Anguste oblongo-ovata, convexa, rufo-picea, nitida, æneo-micans; thorace sat fortiter subcrebre punctato, viridi-æneo, disco roseo-æneo; elytris roseo-æneis, viridi-limbatis, fortiter punctatis, punctis ante medium minus distincte, pone medium magis regulariter, seriatim dispositis, interspatiis inter strias prope apicem incrassatis, convexis.

Long. $2\frac{1}{3}$ lin.

Hab. Singapore.

Head finely and very remotely punctured on the vertex, face

above the apex of the epistome coarsely punctured; epistome scarcely longer than broad, sides nearly straight and parallel, rounded and converging towards the apex; apical border broadly obsolete, anterior margin concave; surface coarsely punctured; antennæ scarcely more than half the length of the body, very slightly thickened externally, black, the five lower joints, together with the labrum and the anterior border of the epistome, obscure fulvous. Thorax twice and a half as broad as long, sides rounded, converging in front; above transversely convex, deeply but not very coarsely punctured. Elytra broadly excavated along the outer border, just within the lateral margin; deeply and more coarsely punctured than the thorax, the punctures irregularly arranged in numerous longitudinal rows, which on the hinder disk become less in number, and here and there approximate in pairs, the interspaces being slightly thickened and convex. Thighs simple.

16. *Colaspoides cærulipes*, n. sp.

Late ovata, convexa, subtus nigra, pectore pedibusque cæruleis, supra viridi-ænea, nitida; labro antennisque obscure-fulvis, his extrorsum nigris; elytris anguste cæruleo-limbatis, substriatim punctatis, interspatiis disci exterioris leviter incrassatis, irregulariter transversim reticulatis.

Long. $2\frac{1}{4}$ lin.

Hab. Borneo.

Head distantly punctured; epistome triangular, apical border obsolete, anterior margin broadly concave-emarginate; surface coarsely and somewhat closely punctured; the lower portion of the front, together with the apex of the epistome, broadly depressed, supra-ocular grooves nearly obsolete; encarpæ slightly thickened; antennæ subfiliform, five lower joints obscure-fulvous. Thorax twice as broad as long, sides straight and parallel from the base to the middle, thence obliquely rounded and converging to the apex; above convex, sides distinctly deflexed in front, narrowly edged with metallic-blue; surface distinctly but not very closely punctured. Elytra not depressed below the basilar space, distinctly punctured, the punctures irregularly placed in double rows, which on the hinder disk become single and more regular; the punctures on the outer disk in front are larger and more deeply impressed; interspaces smooth, on the anterior portion of the outer disk they are thickened, and form obsoletely transverse

reticulations, on the hinder portion they are obsoletely costate. Thighs simple.

C. cærulipes is shorter and less coarsely punctured than *C. pulchella* and *cærulescens*, to both of which species it is closely related.

17. *Colaspoides pulchella*, Clark.

Ann. and Mag. Nat. Hist., February, 1865.

Ovalis, convexa, viridi-cærulea, nitido-metallica, subtus viridi-ænea; antennis filiformibus, extrorsum vix incrassatis, nigro-purpureis; thorace transverso, distincte punctato; elytris fortiter subseriatim punctatis, interspatiis ad latus transversim elevato-reticulatis aut strigosis, apicem versus longitudinaliter costatis; limbo inflexo viridi-æneo.

Long. $2\frac{1}{2}$ lin.

Hab. Pulo-Penang.

Head coarsely but not closely punctured; epistome much longer than broad, wedge-shaped, obliquely depressed at base and apex, extreme apical margin obsolete, sides straight and converging backwards, anterior border armed with two very short acute teeth; supra-ocular groove broad, shallow; antennæ more than half the length of the body, six outer joints very slightly thickened; jaws rufo-piceous. Thorax nearly twice as broad as long; the sides straight and obliquely converging from the base to the middle, thence obliquely rounded and converging to the apex; surface transversely convex, distinctly and somewhat closely punctured. Elytra ovate, scarcely broader than the thorax, strongly punctured, punctures irregularly arranged in longitudinal rows; interspaces on the outer disk thickened and forming coarse irregular transverse reticulations; towards the apex they form longitudinal costæ.

18. *Colaspoides cærulescens*, n. sp.

Ovalis, convexa, metallico-cærulea, nitida; thoracis lateribus, capite corporeque subtus viridi-cæruleis; antennis filiformibus, extrorsum vix incrassatis, nigris, purpureo vix micantibus; thorace transverso, distincte subcrebre punctato; elytris fortiter subseriatim punctatis, interspatiis disco exteriori elevatis, irregulariter transversim reticulatis, apicem versus longitudinaliter costatis.

Long. $2\frac{1}{2}$—3 lin.

Hab. Malay Peninsula (Tringanee).

Head coarsely but very distantly punctured, the punctures rather more closely placed towards the lower portion of the front; epistome subcampanulate, its apex separated from the front by a deep groove, which extends across between the supra-orbital grooves, extreme apical suture obsolete; anterior margin armed with two very short obtuse teeth; surface more coarsely and closely punctured than the front; jaws and antennæ black, six outer joints of the latter very slightly thickened, blueish-black. Thorax more than twice as broad as long; sides rounded and converging from base to apex, nearly parallel at the extreme base, anterior angles produced, acute; surface transversely convex, sides strongly deflexed in front. Elytra broadly oblong, convex, not excavated below the basilar space; surface deeply and coarsely punctured, irregularly arranged in longitudinal rows, which towards the apex become less numerous and very regular; interspaces on the outer disk thickened and transversely reticulate, on the middle and outer portions of the disk they form strong longitudinal costæ.

19. *Colaspoides viridana*, n. sp.

Oblonga, convexa, viridi-metallica, nitida; antennis (articulo basali excepto) tarsisque nigris; thorace irregulariter subcrebre punctato; elytris fortiter seriatim sed minus regulariter punctatis, interspatiis ad apicem subcostatis, punctis disco exteriori profundis, confuse dispositis; interspatiis elevatis, irregulariter reticulatis, hic illic subtuberculatis.

Long. 3 lin.

Hab. Celebes.

Head irregularly and distantly punctured, obliquely rugose-strigose on either side above the eyes, the middle of the front impressed with a deep but ill-defined longitudinal groove; epistome triangular, sides slightly rounded, converging backwards, the apex narrowly obsolete; anterior border tri-emarginate, surface more closely punctured than the front; antennæ slender, filiform, blueish-black, basal joint nigro-æneous, stained with piceous beneath; labrum black. Thorax nearly three times as broad as long, the sides nearly straight and parallel from the base to a short distance behind the middle, thence obliquely converging and slightly rounded to the apex, anterior angle produced, acute; above convex, sides moderately deflexed in front, surface coarsely

punctured, rugose-strigose on the sides. Elytra obsoletely depressed below the basilar space, coarsely punctured, the punctures irregularly arranged in double rows, which become single on the outer border and near the apex; interspaces strongly thickened, very irregularly reticulate; on the hinder disk they form several strongly-thickened but ill-defined longitudinal costæ. Thighs simple.

20. *Colaspoides Rafflesii*, n. sp.

Ovata, convexa, obscure viridi-metallica, supra viridi-ænea; antennis fulvis, extrorsum fuscis; thorace sat fortiter punctato; elytris fortiter seriatim punctatis, punctis disco exteriori profunde impressis, interspatiis elevato-reticulatis, punctis prope apicem seriatim dispositis, interspatiis inter strias elevatis, convexis.

Long. 2—2½ lin.

Hab. Sumatra.

Head coarsely but not very closely punctured, front impressed with a deep and broad but ill-defined longitudinal groove; epistome scarcely broader than long, campanuliform, apical border obsolete, middle of anterior border concave-emarginate, surface coarsely and somewhat closely punctured; supra-orbital groove deeply impressed, its lower end extending along the upper border of the encarpæ to the apex of the epistome, nearly joining its fellow of the opposite side; antennæ slender, filiform, their basal half fulvous; labrum obscure fulvous. Thorax considerably more than twice as broad as long, the sides straight and parallel behind the middle, rounded and converging anteriorly; above convex, sides obliquely deflexed in front, anterior and posterior angles acute; surface coarsely and rather closely punctured, the interspaces very finely punctured, forming on the sides irregularly reticulated longitudinal strigæ. Elytra convex, not depressed below the basilar space, rather finely punctured on the inner disk, the punctures on the basal half irregularly arranged in double rows, which on the hinder portion become single and costate; on the outer disk the punctures are much more strongly impressed and less regular; the interspaces are very strongly thickened, on the anterior portion they are subtuberculate, and form very irregular reticulations; on the hinder portion they are

strongly-raised, and form vermiculate longitudinal costæ. Thighs simple.

The thorax is more rounded at the sides, and more finely punctured, than in the allied species.

21. *Colaspoides Philippinensis*, n. sp.

Subelongata, convexa, subtus piceo-ænea, nitida, supra viridi-ænea; antennis piceo-æneis; thorace sat fortiter punctato; elytris fortiter subseriatim punctatis, striis disco interiori pone medium regulariter positis, interspatiis elevatis, convexis, punctis disco exteriori profundis, confuse dispositis, interspatiis elevato-reticulatis.

Long. $2\frac{1}{4}$—$2\frac{1}{2}$ lin.

Hab. Manilla.

Head coarsely punctured, front impressed with a deep longitudinal groove; epistome triangular, sides straight, obliquely converging backwards, rounded at the apex, apical margin obsolete; anterior border produced into two very short obtuse lobes, the space between concave-emarginate; surface (with the exception of the extreme apex) more finely punctured than the front; antennæ filiform, obsoletely thickened towards the apex, five lower joints piceous, the rest black.

C. Philippinensis is similar in form to, but smaller than, *C. viridana* (p. 146), and its thorax is more coarsely punctured; from *C. Rafflesii*, to which it is more nearly related in size, the coarser punctuation of the thorax separates it.

22. *Colaspoides Laportii*, n. sp.

Oblongo-ovata, convexa, viridi-ænea, nitida; antennis nigro-piceis; thorace subfortiter punctato; elytris fortiter subseriatim punctatis, striis pone medium regulariter positis, sulcatis, interspatiis costatis, punctis disco exteriori confusis, interspatiis incrassatis, irregulariter reticulatis.

Long. 2 lin.

Hab. Malacca, Singapore.

Head distantly punctured, front impressed with a short longitudinal groove; epistome wedge-shaped, sides straight and converging backwards, apical border obsolete; middle of anterior margin subangulate-emarginate; surface coarsely and irregularly punctured; supra-orbital groove deeply impressed, its lower

extremity extending along the upper border of the encarpæ to the epistome; antennæ filiform, four or five lower joints piceous, the rest black. Thorax considerably more than twice as broad as long, the sides straight and parallel behind the middle, thence rounded and converging to the apex; above convex, sides strongly deflexed in front; surface coarsely but not very closely punctured. Elytra very strongly and deeply punctured, punctures arranged in longitudinal rows, which are indistinct on the basal half of the disk, but distinct and regular on the hinder portion, where the interspaces are strongly thickened and costate; on the anterior two thirds of the outer disk the interspaces form irregular strongly thickened reticulations. Thighs simple.

23. *Colaspoides cognata*, n. sp.

Oblonga, convexa, subtus metallico-viridis, abdomine, tibiis tarsisque cæruleo-viridibus, supra viridi-ænea; antennis nigris, basi fulvis; thorace subcrebre punctato, utrinque prope angulum posticum subfoveolato; elytris striatim punctatis, punctis in striis bifariis confuse dispositis; striis prope apicem non approximantibus, regularibus, subsulcatis, interspatiis elevatis, ante medium rude reticulatis, pone medium costatis, costis vermiculatis.

Long. 2 lin.

Hab. Pulo-Penang, collected by Mr. Lamb.

Head distinctly but not closely punctured, front slightly convex, impressed in the centre with a shallow longitudinal groove; epistome wedge-shaped, apical border obsolete, anterior border produced into two very short obtuse teeth; surface more closely and coarsely punctured than the front; labrum obscure fulvous; jaws and antennæ black, the latter slightly thicker towards the apex, the five lower joints obscure fulvous. Thorax rather more than twice as broad as long, the sides straight and slightly converging from the base to the middle, thence obliquely rounded and converging to the apex, hinder angle tuberculate; surface distinctly and rather coarsely punctured, the puncturing much coarser on the sides; on either side of the hinder disk is a large shallow fovea, which in some specimens is entirely obsolete. Elytra slightly excavated below the basilar space, coarsely punctured, the punctures irregularly arranged in double rows in front, but forming single regular and slightly sulcate rows on the hinder

third of the elytron; interspaces strongly thickened, costate; on the anterior two-thirds the costæ are much broken up and interrupted through the coarse irregular reticulations of the surface, on the hinder third they are more or less vermiculate. Thighs simple.

Nearly allied to *C. tuberculata*, but separated from that species by the absence of tubercles on the elytra; it is also very close to *C. Laportii* (p. 148), but may be known by the less strongly raised costæ on the hinder third of the elytra.

24. *Colaspoides tuberculata*, n. sp.

Ovata, convexa, viridi-ænea, supra ænea aut cupreo-ænea; antennis filiformibus, purpureo-nigris, basi fulvis, æneo-tinctis; thorace distincte punctato; elytris fortiter seriatim punctatis, interspatiis ad apicem costatis; punctis disco exteriori confuse dispositis, interspatiis valde elevatis, irregulariter reticulatis, tuberculatis.

Long. 2½ lin.

Hab. Borneo (Sarawak).

Head deeply but distantly punctured, upper portion of the front impressed with a deep longitudinal groove; epistome triangular, sides slightly rounded, extreme apex continuous with the lower border of the face; surface deeply but remotely punctured, its lower portion obliquely deflexed, anterior border produced into two very short obtuse lobes; supra-ocular groove broad, deep, extending downwards of equal depth between the encarpæ and face; antennæ slender, filiform, nearly equal to the body in length, three or four lower joints obscure fulvous, metallic-green above. Thorax transverse, sides nearly straight and parallel behind the middle, obliquely rounded and converging from the middle to the apex; surface deeply but not very closely punctured. Elytra broadly oblong, convex, deeply punctured, the punctures arranged in longitudinal rows at the base, on the inner disk, and on the hinder third of the outer disk; the interspaces on the hinder third of the whole surface costate; on the anterior two-thirds of the outer disk the punctures are less regularly arranged, the interspaces being strongly thickened, irregularly reticulated and broken up into numerous irregular tubercles.

C. tuberculata is most nearly allied to *C. cognata*, but may be separated by the tuberculate interspaces of the elytra.

25. *Colaspoides violacea*, n. sp.

Oblonga, convexa, supra cærulea, subtus piceo-violacea; antennis fulvis, apice fuscis; thorace subcrebre punctato; elytris infra basin non excavatis, subcrebre striatim punctatis, interspatiis ad apicem obsolete costatis.

Long. 2 lin.

Hab. Borneo (Sarawak).

Head smooth, nearly impunctate; epistome wedge-shaped, apical margin obsolete, anterior border slightly concave-emarginate; antennæ nearly equal to the body in length, filiform, very slightly thickened towards the apex, three apical joints fuscous. Thorax nearly three times as broad as long; sides rounded, converging in front; above transversely convex, sides obliquely deflexed in front, surface somewhat closely punctured. Elytra scarcely broader than the thorax, not excavated below the basilar space, somewhat coarsely and closely punctured, the punctures arranged in numerous irregular longitudinal rows, which approximate in pairs on the hinder disk; these again, near the suture and on the outer margin, contract as they approach the apex into single rows, the interspaces between them being thickened and forming indistinct costæ.

26. *Colaspoides picea*, n. sp.

Oblonga, convexa, pallide picea, nitida; femorum apicibus tibiisque obscurioribus; thorace tenuiter punctato; elytris confuse seriatim punctatis.

Long. $1\frac{1}{4}$ lin.

Hab. Singapore.

Head smooth, nearly impunctate; epistome not longer than broad, sides rounded, apical margin obsolete, anterior border concave-emarginate; surface distinctly punctured, impressed on either side near the apex with an oblong fovea; antennæ slender, filiform. Thorax nearly three times as broad as long, sides rounded from base to apex, converging in front; surface obliquely deflexed on either side in front, very finely but indistinctly punctured. Elytra scarcely broader than the thorax, not impressed below the basilar space, distinctly punctate-striate, the striæ slightly approximating in double rows; on the hinder third of the disk the puncturing of these rows becomes irregular and confused, each pair having as usual a tendency to become single; interspaces smooth.

27. *Colaspoides parvula*, n. sp.

Breviter ovata, convexa, postice paullo attenuata, pallide fulvo-picea, nitida; pedibus antennisque obscure fulvis; thorace tenuiter remote punctato; elytris subcrebre seriatim punctatis; mandibulis nigris.

Long. $1\frac{1}{3}$ lin.

Hab. Singapore.

Head smooth, impunctate; epistome much longer than broad, lanceolate, its apex very acute, sides sinuate in front, not distinctly separated from the rest of the face, the sutural lines being only visible under a strong lens, anterior border broadly subangulate-emarginate, surface finely and remotely punctured; antennæ filiform, slightly thickened towards the apex. Thorax nearly three times as broad as long, sides regularly rounded and converging from base to apex, nearly straight and parallel at the extreme base; above transversely convex, sides strongly deflexed in front; surface very sparingly impressed with round shallow punctures. Elytra not excavated below the basilar space, much more coarsely and closely punctured than the thorax, the punctures large and foveolate, but not very deeply impressed, on the anterior two-thirds they are arranged (although very indistinctly) in numerous longitudinal rows, on the hinder third the punctures are smaller and the rows are much fewer in number and more distinct; interspaces smooth, plane.

28. *Colaspoides quadripartita*, n. sp.

Breviter oblonga, convexa, supra nigra, nitida; pedibus nigris; facie, femoribus apice excepto, corporeque subtus, pallide rufo-piceis, hoc nigro-maculato; thorace tenuiter subremote punctato; elytris sat fortiter seriatim punctatis, utrisque plagis duabus magnis rufo-fulvis; antennis basi fulvis.

Var. A. Elytris rufo-fulvis, margine laterali fasciâque latâ prope medium nigris.

Var. B. Thorace rufo-fulvo.

Long. 2 lin.

Hab. Singapore.

Head smooth, upper portion of the front nearly impunctate, lower portion coarsely punctured; supra-ocular grooves deeply impressed, coarsely punctured; epistome not longer than broad, sides nearly straight and parallel, rounded and converging on their upper half; apical suture broadly obsolete, anterior border produced into two short very obtuse teeth; surface deeply but not

closely punctured; antennæ filiform, basal half obscure fulvous; jaws black. Thorax nearly three times as broad as long, sides rounded and converging forwards, nearly straight and parallel at the extreme base; above transversely convex, sides strongly deflexed in front, surface finely and subremotely punctured.

Genus Callisina, Baly.

Journ. of Entom. i. p. 30.

Corpus oblongo-elongatum, valde convexum. *Caput* exsertum, declive; *oculis* prominentibus, oblongo-ovatis, intus sinuatis; *antennis* ad apicem valde compresso-dilatatis, articulis quinto ad nonum perparum ampliatis, tribus ultimis latitudine æqualibus. *Thorax* transversus, convexus, lateribus marginatis. *Scutellum* subtrigonatum, apice rotundatum. *Elytra* thorace latiora, oblonga, convexa. *Pedes* robusti; *femoribus* (præsertim anticis) incrassatis, subtus dente acuto armatis; *tibiis* posticis quatuor extus ante apicem emarginatis; *tarsis* articulo primo duobus sequentibus conjunctim breviori; *unguiculis* appendiculatis. *Episternum* anticum trigonatum, sulcis inter prosternum et episterna obsoletis.

Callisina approaches *Corynodes* through its dilated antennæ, but is separated by the general form of the body and thorax, as well as by the notching of the four hinder tibiæ.

1. *Callisina fasciata*, Baly.

Journ. of Entom. i. p. 30, pl. i. fig. 6.

Oblonga, convexa, nitido-rufo-testacea; antennis extrorsum nigris; thoracis basi, elytrorumque suturâ fasciisque duabus latis, nigro-piceis.

Long. $2\frac{3}{4}$ lin.

Hab. Malacca, Borneo.

Oblong, convex, shining rufo-testaceous; the seven outer joints of the antennæ black; the base of the thorax, the suture, and two broad transverse bands on the elytra, nigro-piceous. Head remotely punctured; eyes black, surrounded by a deep circular groove; epistome separated from the face by a short oblique groove on each side; forehead with an oblong fovea; jaws nigro-piceous; four basal joints of the antennæ rufo-testaceous, the rest black, the second and two following joints slender. Thorax broader than

long; apical margin entire, convex; sides narrowly margined, obtusely rounded, armed just behind the middle with a small obtuse tooth, anterior and posterior angles notched; above very convex, constricted and cylindrical at the anterior margin; surface remotely impressed with large deep punctures; the base, together with the extreme lateral margin, nigro-piceous. Scutellum piceous. Elytra oblong, slightly narrowed behind, convex; on the basilar portion is a slightly elevated transverse space, which, covering the shoulder, extends inwards nearly to the suture, and is bounded behind by a shallow transverse groove; each elytron with ten rows of punctures, the first abbreviated; the outer stria, which is placed on the lateral margin, deeply sulcate; the puncturing of the remaining striæ distinct, and deeply impressed in their middle portion, indistinct and nearly obsolete on the elevated space at the base and towards the apex; interspaces impressed each with a single row of fine punctures placed midway between the striæ; those in the outer interspaces are larger and deeper, rendering the striæ themselves confused; the extreme basal and lateral margin, a broad sutural vitta, abbreviated at the extreme apex of the elytra, together with two broad transverse fasciæ, the first immediately before the middle, the other halfway between the middle and the apex, piceous. Body beneath rufo-testaceous, somewhat more obscure on the breast.

2. *Callisina quadripustulata*, Baly.

Desc. New Gen. and Spec. Phyt. p. 11.

Oblonga, valde convexa, nigra, nitida; elytris basi elevatis, confuse punctato-striatis, utrisque pustulis duabus magnis, rufo-fulvis, lævibus, fere impunctatis, primâ basin elevatam amplectente, secundâ a medio fere ad apicem extensâ; antennis obscure fulvis, clavâ valde dilatatâ, nigrâ.

Long. 3 lin.

Hab. Java.

Head coarsely but not very closely punctured, a patch on the vertex, together with the sides of the labrum, obscure rufous; antennæ rather more than half the length of the body, club broadly dilated. Thorax transverse; sides produced in the middle into an indistinct tooth, straight and parallel on the hinder half, rounded and converging in front; above convex, coarsely punctured, sides irregularly excavated near the lateral margin. Elytra broadly oblong, parallel, broadly rounded at the apex, convex;

basilar space, together with the humeral callus, strongly thickened; surface punctate-striate; on each elytron are placed two large rufo-fulvous patches, one transverse, covering the elevated base, and extending from the outer border of the humeral callus nearly to the suture, the other triangular, commencing just below the middle of the elytron and reaching nearly to its apex; the surface covered by these patches is much more finely punctured than the remaining portion of the disk.

Genus Scelodonta, Westwood.

Proc. Zool. Soc. 1837, p. 129.

Corpus oblongum, convexum. *Caput* exsertum, perpendiculare, utrinque supra oculum sulco profundo impressum; *antennis* filiformibus, apicem versus vix incrassatis; *oculis* integris, prominentibus. *Thorax* subcylindricus, lateribus non aut leviter marginatis. *Elytra* thorace multo latiora, apicem versus angustata, punctato-striata. *Pedes* robusti; *femoribus* basi paullo attenuatis, subtus dente valido armatis; *tibiis* quatuor posticis extus ante apicem emarginatis; *unguiculis* dentatis. *Prosternum* latitudine paullo longius, sulcis inter hoc et epimera antica obsoletis. *Mesosternum* transversum.

Scelodonta may be known from all nearly-allied genera by the deep grooves on the head, placed one on either side a little above the eye.

1. *Scelodonta curculionoides*, Westw. (Pl. V. fig. 8.)

Proc. Zool. Soc. 1837, p. 129.

Oblonga, convexa, late viridi-metallica; thorace purpureo-bivittato, transversim elevato-strigoso, interspatiis punctatis; elytris profunde et crebre punctatis, interspatiis elevato-reticulatis, postice prope suturam costatis; utrisque suturâ anticâ, vittâ subsuturali posticâ, maculisque quinque (unâ submedianâ communi), purpureis.

Var. A. Pedibus aureis.

Long. $2\frac{1}{2}$—$2\frac{3}{4}$ lin.

Hab. Manilla, Celebes. Var. A, Menado.

Head finely rugose-punctate, front impressed with a deep longitudinal groove, which extends down to the apex of the epistome, anterior margin of the latter angularly notched; antennæ rather longer than the head and thorax, five outer joints black. Thorax

scarcely broader than long, sides regularly rounded; upper surface transversely convex, closely covered with transverse raised strigæ, which here and there anastomose, more especially on the sides; interspaces finely punctured. Scutellum pentagonal. Elytra closely covered with coarse deeply impressed punctures, arranged in striæ along the suture and towards the apex, irregularly placed on the outer disk; interspaces thickened, and forming close irregular reticulations, on the hinder half of the surface they become distinctly costate; the anterior three-fifths of the suture, a subsutural vitta which commences at the end of the sutural line and runs parallel to the suture nearly to the apex, together with five irregular spots on the disk of each elytron, bright metallic-purple; these spots are placed as follows,—one submedian, common, the second covering the humeral callus, the third subbasal, halfway between the humeral callus and the suture, the fourth transverse, on the outer portion of the middle disk, sends a short branch downwards to join the subsutural vitta, the fifth oblong, on the outer disk halfway between its middle and apex.

2. *Scelodonta purpureomaculata*, Baly.

Desc. New Gen. and Spec. Phyt. p. 1.

Oblonga, convexa, cupreo-aurea, nitida; antennis (articulis basalibus exceptis), thoracis elytrorumque maculis metallico-purpureis; thorace transversim elevato-strigoso; elytris profunde rugoso-punctatis, costatis; tarsis nigris.

Long. $2\frac{1}{2}$—3 lin.

Hab. Celebes.

Head coarsely rugose-punctate, front impressed with a longitudinal groove, which extends downwards to the apex of the epistome, the anterior margin of the latter angulate-emarginate; antennæ rather longer than the head and thorax, one or more of the basal joints cupreous. Thorax similar in form and sculpturing to *S. curculionoides*. Scutellum subpentagonal, rugose-punctate. Elytra very similar in sculpture to *S. curculionoides*, with this exception, that the costæ visible on the hinder portion of the surface in the former species, in the present case extend to the base, but are fewer in number and less distinct; each elytron has two patches at the base, one covering the humeral callus, the other subbasal, placed midway between the shoulder and the

suture, an irregular transverse band across the middle, abbreviated externally, a subsutural vitta (connected with the lower edge of the transverse band by a short branch) running parallel to the hinder two-fifths of the suture, and, lastly, an oblong patch placed on the outer disk halfway between its middle and apex.

3. *Scelodonta pulchella*, Baly.

Desc. New Gen. and Spec. Phyt. p. 1.

Oblonga, convexa, læte viridi-metallica, nitida; pedibus antennisque viridi-æneis, his extrorsum tarsisque nigris; thorace irregulariter transversim elevato-strigoso; elytris pilis brevibus depressis cinereis sparse vestitis, fortiter punctato-striatis, interspatiis sat fortiter punctatis, convexiusculis, antice transversim rugoso-strigosis, ante apicem costatis; suturâ postice abbreviatâ plagisque disci nigro-cæruleis.

Long. $2\frac{1}{2}$—3 lin.

Hab. Celebes.

Head rugose-punctate; front impressed with the usual longitudinal groove, anterior margin of epistome angulate-emarginate; antennæ about half the length of the body, slender, filiform. Thorax scarcely longer than broad, sides regularly rounded; upper surface convex, closely covered with irregular transverse raised strigæ, which anastomose freely with each other, interstices punctured. Scutellum subpentagonal, coarsely and closely punctured. Elytra strongly punctate-striate, the striæ on the middle disk and apex sulcate; interspaces in front closely and coarsely punctured, transversely rugose-strigose, rendering the striæ themselves indistinct; below the middle the interspaces are much less closely punctured and slightly convex, those on the outer disk being costate near the apex of the elytron.

This insect is narrower, and has the elytra less attenuated posteriorly than either of the preceding species.

4. *Scelodonta nitidula*, Baly.

Desc. New Gen. and Spec. Phyt. p. 2.

Oblonga, convexa, cuprea, nitida; antennis tarsisque nigris; thorace irregulariter transversim elevato-strigoso; scutello transverso, pentagono; elytris sparse albido-pilosis, rude punctato-striatis, interspatiis ante medium transversim rugosis, infra

medium lævibus, convexiusculis, ad apicem subcostatis; suturâ antice discique maculis subelevatis nonnullis purpureo-cupreis.

Long. 2 lin.

Hab. Borneo, Singapore.

Head coarsely punctured, convex; face between the eyes impressed with a short longitudinal groove; anterior edge of epistome angularly notched; antennæ shorter than half the length of the body, entirely black. Thorax transversely convex; sides rounded, slightly converging from behind the middle to the apex; upper surface closely covered with irregular, somewhat coarse, transverse, raised striæ, the interstices impunctate; on the anterior edge of the disk the strigæ are absent, being replaced by a few deep punctures. Scutellum slightly transverse, pentagonal, coarsely but not very closely punctured. Elytra with the shoulders prominent; coarsely punctate-striate, the puncturing finer towards the apex, interspaces transversely rugose-strigose in front, smooth and slightly convex behind the middle, subcostate towards the apex; on the disk of each elytron are several ill-defined and nearly obsolete purplish-coppery markings.

5. Scclodonta granulosa, n. sp.

Oblonga, convexa, cuprea aut viridi-ænea, nitida; antennis (basi exceptâ) tarsisque nigris; fronte rugosâ, longitudinaliter sulcatâ; thorace irregulariter transversim elevato-strigoso; elytris granulosis, sat fortiter punctato-striatis, interspatiis ante medium dense rugoso-punctatis, infra humeros transversim rugulosis, convexiusculis, pone medium minus dense punctatis, apicem versus et disco exteriori subcostatis, 4to et 6to ad basin elevatis; disco maculis nonnullis purpureo-cupreis ornato.

Var. A. Elytrorum maculis purpureis obsoletis.

Long. 2—2½ lin.

Hab. Borneo (Sarawak), Celebes.

Head closely rugose-punctate, interspaces between the punctures granulose; anterior border of epistome produced into two short acute teeth, the space between them angulate-emarginate. Thorax broader than long, sides regularly rounded, converging at the base and apex; surface impressed with coarse irregular transverse strigæ. Scutellum transverse, pentagonal. Elytra slightly narrowed towards the apex, granulose over their whole surface,

coarsely punctate-striate, interspaces impressed with numerous punctures of equal size and depth with those on the striæ themselves, rendering the latter indistinct; from each of the punctures springs a very short subdepressed scale-like hair; humeral callus prominent; halfway between the callus and suture are two short longitudinal ridges, connected at their lower end by a third, transverse; interspaces on the outer disk and towards the apex costate; on the anterior two-thirds of the outer disk the general surface is transversely rugulose; an ill-defined patch at the base, covering the two short longitudinal ridges, another on the middle disk, together with the apices of some of the costæ, obscure metallic-purple. Pleuræ densely clothed with white pubescence.

Genus Chrysopida, Baly.

Journ. of Entom. i. p. 288.

Corpus subelongatum aut elongatum, valde convexum. *Caput* exsertum; *facie* elongatâ, perpendiculari; *antennis* gracilibus, filiformibus; *oculis* subprominulis, intus emarginatis; *palpis* gracilibus; *mento* profunde angulato-inciso. *Thorax* ovatus, subglobosus, basi et apice truncatus, lateribus marginatis. *Elytra* thorace multo latiora, obovata, punctato-striata aut confuse punctata, sæpe squamulis adpressis hic illic obtecta. *Pedes* robusti, subelongati; *femoribus* (præsertim anticis) modice inflatis, elongato-ovatis, basi et apice angustatis, subtus spinâ brevi armatis; *tibiis* posticis quatuor extus ante apicem emarginatis, anticis ♂ apice incrassatis; *unguiculis* basi dentatis. *Prosternum* latum, lateribus medio paullo productis; *episternis* anticis anguste cuneiformibus, angulo exteriori extus non producto; sulcis inter prosternum et episterna obsoletis.

Chrysopida is easily separated from its allies by the elongated head and subglobular thorax; in colouring it closely resembles certain genera of *Curculionidæ* peculiar to the Malay Archipelago.

A. *Body metallic; elytra punctate-striate.*

1. *Chrysopida Attelaboides*, Erichs. (Pl. V*. fig. 4.)

Colaspis Attelaboides, Erichs. Beitr. z. Zool. 1834, p. 271, tab. xxxix. fig. 11.

Chrysopida Adonis, Baly, Journ. of Entom. i. p. 289.

Subelongata, viridi-ænea, nitida; thorace rufo-piceo, æneo-

tincto; elytris pedibusque rufis, illis fortiter punctato-striatis, striis postice sulcatis, callo humerali, maculis parvis nonnullis basalibus, et annulo apicali, viridi-æneis; his femoribus basi, genibus tarsisque violaceo-nigris.

Long. $4\frac{1}{2}$ lin.

Hab. Manilla, Lucon.

Subelongate, very convex. Head deeply punctured; face elongate, bilobed between the eyes; clypeus subtrigonate, its apical border trisinuate; antennæ fusco-æneous, clothed with adpressed fusco-fulvous pubescence, four basal joints rufous, nearly glabrous. Thorax oval, truncate at base and apex, slightly longer than broad, sides rounded, all the angles armed with a short obtuse tooth; above convex, subremotely punctured. Scutellum semiovate. Elytra much broader than the thorax, truncate at the base, thence gradually narrowed to the apex, the latter subacutely rounded; above convex, each elytron at its extreme base with thirteen, its disk with ten rows of large, deeply impressed punctures, the striæ deeply sulcate, their interspaces (the extreme base excepted) subcostate; humeral callus prominent, sometimes rufo-piceous, at others metallic-green, basilar space bounded beneath by a short shallow transverse fossa; a small annulus at the apex (sometimes obsolete), and some indistinct markings at the base of each elytron, bright metallic-green. Pleura covered with a patch of white silky adpressed hairs. Thighs narrowly ampullate, slender at their base, armed beneath just beyond the middle with an acute tooth.

2. *Chrysopida festiva*, Baly.

Journ. of Entom. i. p. 289.

Elongata, subcylindrica, metallico-viridis, nitida; antennis nigris, basi rufo-fulvis; pedibus (femoribus basi exceptis), capite inter oculos, thoraceque nigro-violaceis; hoc punctato, basi et apice metallico-viridi; elytris fortiter punctato-striatis, striis sulcatis, interspatiis postice costatis; utrisque vittâ suturali, callo humerali, maculis tribus, primâ infra basin, secundâ pone medium, tertiâque ante apicem positis, fasciâque latâ ante medium, extrorsum abbreviatâ, nigro-violaceis.

Long. 4 lin.

Hab. Manilla.

Narrower and more elongate than the preceding species; in sculpture, form of head, &c., precisely similar. The colouring of

the elytra appears to be very variable; the individuals from which the above description is taken have the surface of the elytra glabrous.

3. *Chrysopida insignis*, n. sp.

Elongata, subcylindrica, viridi-ænea, pedibus viridi-purpureis; thorace subgloboso, distincte punctato; elytris infra basin transversim excavatis, profunde punctato-striatis, interspatiis elevatis, irregulariter reticulatis, prope suturam et ad apicem longitudinaliter costatis; utrisque suturâ maculisque duabus, infra medium longitudinaliter positis, metallico-purpureis; fasciâ transversâ vix infra medium disci, vittisque nonnullis prope apicem pilis albidis ornatis.

Long. 4 lin.

Hab. Manilla.

Still narrower and more cylindrical than *Chrysopida festiva*, the interspaces on the elytra more irregularly thickened; differing also in the bands and markings of silvery-white hairs clothing the elytra. Head granulose, distinctly punctured, vertex with a slightly raised longitudinal ridge; lower border of front bilobate; epistome subcampanulate, its front border slightly concave-emarginate in the middle; antennæ slender, filiform, nearly equal to the body in length, five lower joints fulvous, stained with metallic-purple above, the rest entirely purple. Thorax rather longer than broad, subglobose, distinctly but not very closely punctured; sides beneath clothed with coarse silvery-white hairs. Scutellum metallic-purple. Elytra bright metallic-green, deeply punctured, the interspaces strongly and irregularly thickened, more particularly at the base and on the middle disk.

4. *Chrysopida regalis*, Baly.

Desc. New Gen. and Spec. Phyt. p. 11.

Elongata, valde convexa, minus cylindrica, obscure ænea, nitidissima; capite thoraceque obscure viridi-metallicis, hoc remote et minute punctato, subgloboso; antennis pedibusque nigris; elytris intra callum humerale et infra basin profundè excavatis, singulis tuberculo obtuso ad apicem prope suturam posito instructis, fortiter punctato-striatis, striis apicem versus sulcatis, interspatiis costatis; suturâ, spatio basilari, callo humerali, fasciâ transversâ prope medium extus abbre-

viatâ, plagâ infra medium, sursum ramulum ad fasciam emittente, tuberculoque nigro-purpureis.

Long. 4 lin.

Hab. Celebes, Morty Island.

Less cylindrical than any of the three preceding species. Antennæ three-fourths the length of the body, slender, filiform. Thorax not longer than broad, less globose than in *C. insignis*, metallic-green, less bright on the disk. Elytra oblong, slightly narrowed from the base towards the apex, each furnished near the apex, close to the sutural border, with a broad obtuse tuberosity; humeral callus prominent; basilar space slightly raised, bounded beneath and externally by a deep excavation; surface punctate-striate, interspaces plane on the anterior disk, costate posteriorly and on the lateral border.

B. *Body non-metallic, elytra rugose-punctate.*

5. *Chrysopida murina*, n. sp.

Subelongata, subcylindrica, picea, subopaca; crebre rugoso-punctata, pube argenteo-griseâ sat dense vestita; elytris irregulariter punctatis, utrisque fasciâ subinterruptâ, vix ante medium disci exterioris positâ, obscure fulvâ, ornatis.

Long. $3\frac{3}{4}$ lin.

Hab. Philippine Islands.

Head strongly but not very closely punctured; epistome not distinctly separated from the front, its anterior border concave-emarginate; antennæ two-thirds the length of the body, slightly thickened towards the apex. Thorax not longer than broad, subcylindrical, subglobose above, sides slightly but regularly rounded, lateral border nearly obsolete; surface closely rugose-punctate, clothed with subdepressed griseous hairs. Elytra broadly oblong, much broader than the thorax, not depressed below the basilar space, clothed with silvery-white hairs, surface coarsely and closely punctate, interspaces thickened.

The non-metallic dull colouring of *C. murina*, together with the close irregular punctuation of its thorax and elytra, give it an entirely different aspect to that of any other insect of the genus; in all structural characters, however, it closely agrees with the metallic species.

Genus Rhyparida, Baly.

Journ. of Entom. i. p. 286.

Corpus subquadrato-ovatum, oblongum aut subelongatum, convexum. *Caput* perpendiculare; *frontis* margine antico plerumque bilobato; *antennis* filiformibus aut subfiliformibus, gracilibus; *oculis* oblongo-ovatis, intus plerumque sinuatis. *Thorax* conicus aut transversus, lateribus marginatis. *Elytra* parallela aut apicem versus perparum angustata, apice rotundata, regulariter punctato-striata. *Pedes* robusti; *femoribus* paullo incrassatis, subtus rarius dentatis; *tibiis* posterioribus quatuor extus ad apicem emarginatis; *unguiculis* unidentatis. *Prosternum* oblongum aut elongatum; *episterno* antico subtrigonato, sulcis inter prosternum et episterna obsoletis. *Mesosternum* subquadratum aut oblongum, apice paullo dilatatum, obtuse truncatum.

The transverse thorax separates this genus from *Chrysopida;* the filiform antennæ and toothed claws from *Callisina;* the different form of the head from *Scelodonta.*

The elytra in *Rhyparida* have each thirteen regular rows of punctures, the first is as usual short, the ninth, tenth, and eleventh begin in the space between the hinder portion of the humeral callus and the middle of the disk, and are often confluent at their commencement, whilst the twelfth is only visible at the base and apex, its middle portion being lost in the thirteenth or marginal stria.

A. *Thorax subconic, much narrower than the elytra; body brilliantly metallic.*

1. *Rhyparida sumptuosa*, Baly. (Pl. V*. fig. 2.)

Pyropida sumptuosa, Baly, Journ. of Entom. i. p. 451.

Oblonga, valde convexa, nitida, metallico-cærulea, viridi-tincta; elytris læte purpureis, plagâ trigonatâ communi magnâ, a basi fere ad apicem extensâ, aureâ; antennis metallico-viridibus.

Long. 4—5 lin.

Hab. Malacca, Tringanee, Penang.

Oblong, very convex, shining metallic-blue with a green reflexion, more especially on the thorax and legs. Head remotely but deeply punctured; antennæ metallic-green, covered (the three or four basal joints excepted) with a fine adpressed fulvous down. Thorax as broad as long in the ♂, rather broader in the ♀, sub-

conic, much narrower than the elytra, remotely punctured. Elytra narrowed from the base towards the apex, transversely grooved below the basilar space; humeral callus prominent; each elytron impressed with thirteen rows of punctures, the first short, tenth and eleventh rows confluent anteriorly, commencing immediately below the humeral callus; the golden patch occupies at its base the whole space between the humeral calli, but gradually narrowing posteriorly, becomes at last a mere sutural line.

B. *Thorax transverse, nearly as broad as the elytra; body rarely metallic.*

2. *Rhyparida biplagiata*, Baly.

Pyropida biplagiata, Baly, Desc. New Gen. and Spec. Phyt. p. 15.

Ovata, convexa, nigra, nitida; fronte piceâ; antennis fulvis; thorace basi transverso, lateribus antice valde declivibus, subremote tenuissime punctato; elytris ovatis, apicem versus paullo attenuatis, infra basin transversim excavatis, distincte punctato-striatis, interspatiis planis; femoribus subtus dente acuto armatis, tarsis piceis.

Mas.—Elytris plagâ magnâ, a basi pone medium et a margine laterali fere ad suturam extensâ, rufo-fulvâ.

Fœm.—Elytris totis nigris.

Long. $1\frac{1}{2}$—2 lin.

Hab. Batchian.

Head granulose; front rufo-piceous, upper portion obliquely strigose on either side, medial line impressed with a shallow longitudinal groove; epistome not separated from the front, the apical suture being entirely obsolete, sides straight and parallel, anterior margin produced into two short teeth, surface remotely punctured; antennæ slender, filiform. Thorax transverse at the base, sides strongly deflexed from behind the middle to the apex, lateral margins rounded, converging in front; surface remotely and very minutely punctured, the punctures being only visible under a strong lens. Elytra oval, slightly narrowed behind, convex, moderately excavated below the basilar space and within the humeral callus, the latter moderately prominent; surface distinctly punctate-striate, the eighth, ninth and eleventh striæ commencing on the hinder portion of the humeral callus, the tenth commencing just before the middle of the disk.

3. *Rhyparida pulchella*, Baly.

Journ. of Entom. i. p. 287.

Anguste oblonga, convexa, pallide testacea, nitida; elytris cyaneis, obovatis, basi truncatis, punctato-striatis, striis apicem versus minus distinctis; antennis gracilibus, filiformibus.

Long. 3 lin.

Hab. New Guinea (Dorey), Mysol.

Narrowly oblong, convex, pale testaceous, nitid; elytra bright metallic-blue. Head smooth, remotely punctured; epistome pentagonal, middle of the anterior margin deeply concave-emarginate; surface concave, more coarsely punctured than the vertex; on the face, immediately above the apex of the epistome, is a distinct fovea; apex of the jaws black; antennæ slender, equal in length to the body, seven terminal joints more or less stained towards the apex with fuscous; eyes deeply emarginate on their inner edge. Thorax twice as broad as long, sides rounded, converging in front, anterior angles deflexed, all the angles produced into a short minute tooth; surface smooth, subremotely but finely punctured on the disk, sides nearly impunctate. Scutellum semiovate, obtuse. Elytra scarcely broader than the thorax, obovate, being distinctly narrowed from the shoulders towards the apex, the apex itself regularly rounded; below the basilar space on each elytron is a large indistinct shallow fovea, the surface of which is slightly irregular; rows of punctures distinct, deeply impressed in front, less distinct (with the exception of two or three near the suture) on the apical portion of the surface; interspaces plane.

4. *Rhyparida regularis*, Baly.

Desc. New Gen. and Spec. Phyt. p. 9.

Oblonga, convexa, pallide rufo-testacea, nitida; elytris oblongis, infra basin non transversim depressis, regulariter punctato-striatis, fusco-violaceis, limbo obscure violaceo; femoribus inermibus.

Long. 3 lin.

Hab. New Guinea (Dorey).

Head finely and remotely punctured; epistome separated from the front by a very fine sutural groove, broader than long, pentagonal, apical angle very obtuse; anterior margin deeply concave-emarginate; face impressed immediately above its apex

with a short indistinct longitudinal groove; antennæ pale fulvous. Thorax transverse, sides rounded, converging from behind the middle to the apex; surface subremotely punctured. Elytra oblong, sides parallel, convex, not excavated below the basilar space; striæ deeply punctured, nearly as distinct at the apex as at the base. Thighs simple.

Very nearly allied to *R. pulchella*, but more parallel, the elytra not narrowed behind, their surface more deeply punctured towards the apex; the epistome broader, and its anterior margin more broadly concave.

5. *Rhyparida alternata*, Baly.

Desc. New Gen. and Spec. Phyt. p. 9.

Oblonga, parallela, rufo-fulva, nitida; antennis gracilibus, filiformibus, pallide fulvis, articulis intermediis nigris; elytris nigris, intra callum humerale et infra basin excavatis, distincte punctato-striatis, striis apicem versus et supra spatium basilare fere deletis; femoribus inermibus.

Long. 3--4 lin.

Hab. Gilolo.

Head minutely granulose, front impressed with a longitudinal groove, which runs upwards from the apex of the epistome; the latter longer than broad, sides straight, slightly converging upwards, apical angle very obtuse, nearly obsolete, anterior margin concave-emarginate, surface distinctly punctured; antennæ slender, equal to the body in length in the ♂, rather shorter in the ♀, intermediate joints black. Thorax twice as broad as long; sides diverging at the base to behind the middle, thence rounded and obliquely converging to the apex, hinder angles armed with an obtuse tooth; surface finely but distinctly punctured. Elytra rather broader than the thorax, parallel, basilar space slightly thickened, bounded without and beneath by a deep groove; striæ distinctly and deeply impressed, nearly obsolete on the basilar space and towards the apex of the elytron.

6. *Rhyparida Lorquinii*, n. sp. (Pl. V*. fig. 1.)

Oblonga, convexa, nigra, nitida; capite, thorace, femoribusque (his basi et apice exceptis) rufo-fulvis; thorace læve, impunctato, margine laterali medio leviter emarginato; elytris oblongis, parallelis, infra basin leviter impressis, striis pone medium deletis; utrisque plagâ subtrigonatâ, transversâ,

prope medium positâ, ad marginem adfixâ, rufo-fulvâ; femoribus inermibus.

Var. A. Elytris totis nigris.

Long. 3 lin.

Hab. Celebes.

Head smooth, impunctate, front impressed just above the apex of the epistome with a distinct longitudinal fovea; epistome transverse, pentagonal, not distinctly separated from the face, the apical sutures obsolete, apical angle very obtuse; anterior border produced on either side into a very short tooth, the space between the teeth rather deeply concave-emarginate; surface finely punctured; antennæ slender, filiform, fulvous at the base, their outer two-thirds nigro-piceous. Thorax twice as broad as long, sides straight and nearly parallel from the base to behind the middle, thence rounded and converging to the apex, all the angles armed with a small acute tooth; about the middle of the border is a small notch, which is more or less defined in different specimens, sometimes being entirely obsolete. Elytra broadly oblong, parallel, moderately impressed below the basilar space; the striæ strongly impressed on the basal half of the disk, almost entirely obsolete on the hinder portion.

7. *Rhyparida nigripennis*, Baly.

Desc. New Gen. and Spec. Phyt. p. 10.

Subelongata, convexa, pallide rufo-picea, nitida; antennis nigris, basi fulvis; elytris nigris, infra basin vix transversim impressis, striis sat fortiter punctatis, ante medium obsolete sulcatis, pone medium minus fortiter impressis; femoribus inermibus.

Long. 3 lin.

Hab. New Guinea.

Head minutely punctured; epistome scarcely broader than long, distinctly separated from the front, its apical sutures being entire, upper angle obtuse; from its apex a short longitudinal groove runs upwards on the face; lateral margins nearly straight, slightly converging backwards, anterior border with its middle portion deeply concave-emarginate, the angles of the notch produced, acute; surface coarsely punctured; antennæ slender, filiform. Thorax twice as broad as long, sides rounded, obliquely converging from behind the middle to the apex, all the angles armed with a small tooth; surface somewhat irregularly but not coarsely punctured. Elytra oblong, parallel,

very slightly excavated below the basilar space; striæ strongly punctured on the anterior half of the surface, distinctly but rather less strongly impressed on the hinder disk, sulcate on the anterior disk, their interspaces slightly convex. Legs obscure fulvous, more or less stained with piceous.

8. *Rhyparida fasciata*, Baly.

Desc. New Gen. and Spec. Phyt. p. 10.

Anguste oblonga, convexa, rufo-fulva; abdomine rufo-piceo; antennis extrorsum, pectore, femoribus apice, tibiis, tarsis elytrisque nigris; his infra basin obsolete transversim impressis, fasciâ latâ communi prope medium rufo-fulvâ ornatâ; femoribus inermibus.

Long. 2½ lin.

Hab. New Guinea (Dorey).

Head smooth, impunctate, lower portion of the face impressed with an ill-defined longitudinal groove, which runs upwards from the apex of the epistome; the latter not distinctly separated from the front, the apical sutures being obsolete; anterior margin deeply concave-emarginate, the angles of the emargination produced, acute; surface slightly concave, smooth, impunctate; antennæ slender, nearly equal to the body in length, five basal joints fulvous, the rest black. Thorax rather more than twice as broad as long, sides regularly rounded, scarcely converging in front, all the angles armed with a short tooth; surface smooth, impunctate. Elytra oblong, parallel, feebly excavated below the basilar space; striæ strongly and rather coarsely punctured in front, punctures smaller and less deeply impressed on the middle disk, almost entirely obsolete on the hinder third of the elytra; interspaces plane.

9. *Rhyparida basalis*, n. sp.

Oblonga, convexa, obscure rufo-fulva, nitida; abdomine nigro-piceo, fulvo-marginato; pectore elytrisque nigris; his infra basin obsolete impressis, sat fortiter punctato-striatis; striis ad apicem distinctis, ante medium vix sulcatis, interspatiis leviter convexiusculis, utrisque basi maculâ parvâ rufo-fulvâ ornatis; pedibus antennisque fulvis, his extrorsum nigro-piceis; femoribus inermibus.

Var. A. Corpore toto obscure fulvo.

Long. 2½ lin.

Hab. New Guinea (Dorey).

Head smooth, plane, impunctate; epistome not separated from the front, the apical sutures being entirely obsolete; anterior

border deeply concave-emarginate, either side of the notch produced into a short but distinct tooth; antennæ very slender, nearly equal to the body in length, lower half pale fulvous, outer half fuscous, base of joints fulvous. Thorax more than twice as broad as long, sides rounded and converging from base to apex, more quickly converging in front, all the angles armed with a small tubercle; surface smooth, impunctate, subopaque. Elytra scarcely broader than the thorax, broadly oblong, parallel, very indistinctly impressed below the basilar space, strongly punctate-striate, the striæ visible to the apex, obsoletely sulcate in front, interspaces very slightly convex; on the basal margin of each elytron is placed a small transverse oblong spot.

10. *Rhyparida semipunctata*, n. sp.

Late oblonga, rufo-fulva, nitida; abdomine nigro-piceo; thorace elytris fere æquilato, minute subcrebre punctato; antennis elytrisque nigris; illis basi fulvis, his infra basin et intra callum humerale excavatis, striis ante medium sat fortiter punctatis, leviter sulcatis, pone medium indistinctis, ad apicem omnino deletis; femoribus subtus dente parvo instructis.

Long. 2 lin.

Hab. Batchian.

Head minutely granulose, finely and remotely punctured; lower portion of the front impressed with a longitudinal groove, which runs upwards from the apex of the epistome; the latter not longer than broad, separated from the front by a faint suture; apical angle obtuse, sides nearly straight, converging backwards; anterior border concave-emarginate, angles of the emargination slightly produced, obtuse; surface more distinctly punctured than the front; jaws pitchy-black; antennæ nigro-piceous, two or three basal joints pale fulvous. Thorax twice as broad as long, sides rounded, diverging at the base, obliquely converging from behind the middle to the apex, hinder angles armed with an obtuse tooth; surface distinctly and somewhat closely punctured. Elytra scarcely broader than the thorax, parallel, broadly impressed transversely below the basilar space, longitudinally impressed within the humeral callus, the latter moderately prominent; striæ strongly punctured in front, the puncturing very fine before the middle, entirely obsolete near the apex; interspaces plane.

11. *Rhyparida puncticollis*, n. sp.

Anguste oblonga, rufo-fulva, nitida; antennis obscure fulvis; abdomine nigro-piceo; thorace distincte subcrebre punctato;

elytris thorace multo latioribus, nigris, intra callum humerale et infra basin leviter excavatis, striis sat fortiter punctatis, postice perparum minus fortiter impressis, interspatiis planis; femoribus subtus dente parvo armatis.

Long. $1\frac{1}{2}-2$ lin.

Hab. Menado, Tondano.

Head distinctly but very distantly punctured; epistome not separated from the front, the apical sutures being entirely obsolete; sides straight and scarcely converging backwards, the whole anterior margin very slightly and broadly angulate-emarginate, surface more coarsely and closely punctured than the front; antennæ obscure fulvous; eyes large, prominent. Thorax half as broad again as long, sides rounded, obliquely converging from below the middle to the apex, hinder angles armed with an obtuse tooth; above transversely convex, almost subcylindrical in front, strongly and somewhat closely punctured. Elytra much broader than the thorax, parallel, convex, feebly impressed below the basilar space and within the humeral callus, the latter moderately prominent; surface strongly punctured, the striæ entire, rather less strongly punctured towards the apex; interspaces plane.

This insect, from its narrow thorax, has much the aspect of a *Nodostoma*.

12. *Rhyparida Pascoei*, Baly.

Desc. New Gen. and Spec. Phyt. p. 10.

Oblongo-ovata, convexa, pallide piceo-fulva, nitida; antennis (basi exceptâ) abdomineque piceis; elytris nigris, infra basin non excavatis, striis sulcatis, tenuiter punctatis, ad apicem distinctis, interspatiis convexiusculis; femoribus subtus dente parvo armatis.

Var. A. Elytris nigris, utrisque vittâ fulvâ latâ sublaterali postice ampliatâ ornatis.

Rhyparida dorsata, Baly, Desc. New Gen. and Spec. Phyt. p. 8.

Var. B. Corpore flavo, elytris piceis, ad latera obscure fulvis.

Var. C. Corpore nigro-piceo, femoribus (apice excepto) elytrisque obscure fulvo-piceis.

Var. D. Corpore fulvo.

Rhyparida fulva, Baly, Desc. &c., p. 11.

Long. 2—$2\frac{1}{2}$ lin.

Hab. Macassar.

Head subremotely punctured, the punctures more crowded on the vertex; epistome much longer than broad, depressed at its

apex, not distinctly separated from the front, the apical sutures being almost entirely obsolete; sides straight, obliquely converging from base to apex; anterior border slightly concave-emarginate; surface punctured in a similar manner to the front; antennæ black, three lower joints pale fulvous; upper border of the encarpæ separated from the front by a deep groove, which extends obliquely upwards along the upper border of the eye. Thorax more than twice as broad as long, sides rounded, obliquely converging from behind the middle to the apex, all the angles armed with an obtuse tooth; surface distinctly impressed with shallow punctures. Scutellum nearly as broad as long, apex obtuse angled. Elytra broader than the thorax, parallel, not excavated below the basilar space, sulcate-striate, the striæ very finely punctured, entire; interspaces convex, somewhat flatter towards the apex; apical border narrowly edged with piceous. Thighs armed beneath with a small tooth.

13. *Rhyparida labiata*, n. sp.

Breviter oblonga, convexa, pallide picea, nitida; capite thoraceque rufo-fulvis; elytris cyaneis, thorace vix latioribus, infra basin non transversim impressis, striis fortiter punctatis, leviter sulcatis, ad apicem distinctis, interspatiis leviter convexiusculis; epistomate transverso, brevi, margine antico late concavo-emarginato, medio in laminam brevem late truncatam antrorsum producto; femoribus nigro-piceis, subtus dente brevi armatis, anticis incrassatis.

Long. 2 lin.

Hab. Northern part of New Guinea.

Head large, very short, transverse; front smooth, impunctate, upper edge of the encarpæ separated from the front by a deep groove, which runs obliquely upwards along the upper border of the eye; epistome very short, not distinguishable from the front, all the sutures being entirely obsolete, its anterior margin deeply and broadly concave-emarginate, the middle third of the border produced anteriorly into a short broad truncate process or plate; labrum large, broad, its anterior border obtusely notched; jaws black; antennæ black, three basal joints pale fulvous. Thorax nearly three times as broad as long, sides regularly rounded, all the angles armed with a small tubercle; surface transversely convex, impunctate. Elytra scarcely wider than the thorax, rather more than twice its length, parallel, not impressed below the basilar space, strongly punctured, the striæ entire, sulcate in front, the interspaces slightly convex.

In the peculiar form of the epistome this remarkable species stands alone.

14. *Rhyparida fulviceps*, Baly.

Desc. New Gen. and Spec. Phyt. p. 10.

Oblonga, convexa, nigro-picea, nitida ; capite thoracisque marginibus antico et basali fulvis ; antennis (basi fulvâ exceptâ) fuscis ; thorace distincte punctato ; elytris thorace multo latioribus, infra basin late transversim excavatis ; striis sat fortiter punctatis, integris, punctis apicem versus minus fortiter impressis, interspatiis planis ; femoribus muticis.

Long. $1\frac{3}{4}$ lin.

Hab. Tondano.

Head remotely punctured ; epistome not separated from the front, the apical sutures being entirely obsolete, lateral sutures indistinct, straight and parallel, anterior border slightly concave-emarginate ; jaws nigro-piceous ; antennæ nigro-piceous, three or four lower joints pale fulvous. Thorax nearly twice as broad as long, sides rounded, obliquely converging from a short distance before the base to the apex ; upper surface strongly and transversely convex, deeply but not coarsely punctured. Elytra much broader than the thorax, parallel, broadly but feebly excavated below the basilar space, longitudinally impressed within the humeral callus, the latter subprominent ; surface strongly and coarsely punctured, the striæ entire, much less strongly and more finely punctured towards the apex ; interspaces plane.

15. *Rhyparida femorata*, Baly.

Desc. New Gen. and Spec. Phyt. p. 11.

Subelongata, convexa, parallela, subtus piceo-violacea, metallico vix micans ; femoribus inermibus, obscure rufis ; antennis fuscis, basi fulvis ; capite thoraceque cæruleo-æneis, hoc subremote tenuiter punctato ; elytris thorace vix latioribus, cupreis, intra callum humerale distincte, infra basin obsolete impressis ; striis integris, ante medium fortiter, ad apicem tenuissime impressis ; interspatiis planis.

Long. $3\frac{1}{2}$ lin.

Hab. Northern part of New Guinea.

Head finely granulose, rather deeply punctured, lower portion of the front impressed with a deep longitudinal groove, which runs upwards from the apex of the epistome ; the latter distinctly

longer than broad, apical sutures entire, apical angle acute, sides straight and parallel, slightly rounded and converging at the apex; anterior border deeply concave-emarginate, angles of the emargination produced, obtuse; surface slightly depressed; antennæ slender, filiform, three lower joints obscure fulvous, the rest black; labrum fulvous; jaws black. Thorax more than twice as broad as long, sides rounded and converging from base to apex, all the angles armed with an obtuse tubercle; above transversely convex, distinctly but not very closely punctured. Scutellum scarcely broader than long, smooth, impressed near the apex with a distinct fovea. Elytra slightly broader than the thorax, parallel; upper surface obsoletely impressed below the basilar space, distinctly sulcate within the humeral callus, the latter subprominent; striæ entire, coarsely and deeply punctured in front, finely punctured on the hinder disk; interspaces plane, finely and somewhat closely punctured; on the suture is a faint violaceous line, surface on the lateral margin also with a violaceous reflexion.

16. *Rhyparida nigroænea*, Baly.

Desc. New Gen. and Spec. Phyt. p. 9.

Anguste oblonga, convexa, nitida, subtus nigro-picea, nitore violaceo-æneo vix induta; thorace elytrisque nigro-æneis, illo distincte sed tenuiter punctato; his thorace distincte latioribus, parallelis, infra basin leviter et intra callum humerale magis fortiter impressis; striis integris, ante medium sat fortiter, pone medium tenuissime punctatis; femoribus muticis.

Long. 4½ lin.

Hab. Southern part of New Guinea.

Head granulose, coarsely punctured; epistome longer than broad, distinctly separated from the front, the apical sutures entire, sides straight and parallel, slightly rounded and converging at the apex; anterior border deeply concave-emarginate, the angles of the emargination produced, obtuse; surface slightly depressed, punctured in a similar way to the front, the latter impressed with a short deep longitudinal groove, which runs upwards from the apex of the epistome; antennæ slender, three or four basal joints obscure fulvous, the rest nigro-piceous. Thorax twice as broad as long, sides rounded, and converging from base to apex, all the angles thickened; above transversely convex, sides obliquely deflexed in front; surface minutely granulose, coarsely

and irregularly but not very closely punctured. Scutellum longer than broad, minutely granulose. Elytra much broader than the thorax, parallel, not excavated below the basilar space; striæ strongly punctured, entire, the punctures rather less deep towards the apex; interspaces plane, very finely and somewhat distantly punctured.

R. nigroænea is shorter and broader than the last species; the elytra are broader in relation to the thorax.

17. *Rhyparida purpurea*, n. sp.

Oblonga, convexa, nitida, metallico-purpurea, subtus nigra; thorace elytrorum latitudini fere æquali, distincte sed minus crebre punctato; elytris infra basin vix excavatis, striis integris, antice sat profunde, postice minus fortiter punctatis; interspatiis præsertim ad apicem convexiusculis, ad latera magis elevatis, convexis; femoribus muticis.

Var. A. Thorace viridi-metallico.

Long. 2½ lin.

Hab. New Guinea.

Head granulose, finely but distinctly punctured; epistome entirely separated from the front, the apical sutures deeply impressed; wedge-shaped, longer than broad, sides converging backwards; anterior border slightly concave-emarginate; surface deeply but not closely punctured; lower portion of front impressed with a deep longitudinal groove, which runs upwards from the apex of the epistome; labrum fulvous; jaws black; eyes small, short; antennæ black, four lower joints fulvous, third and fourth stained above with piceous. Thorax twice as broad as long; sides rounded and converging from base to apex; upper surface transversely convex, minutely granulose, impressed with moderately large but shallow round punctures. Scutellum semiovate, its apex obtusely angular. Elytra broader than the thorax, subparallel, very indistinctly excavated below the basilar space; striæ entire, strongly punctured; interspaces slightly convex, thickened and more convex on the outer disk.

18. *Rhyparida fraternalis*, n. sp.

Oblonga, convexa, subtus piceo-nigra, supra saturate cærulea, viridi-micans, nitida; antennis nigris, basi fulvis; thorace sparse hic illic punctato; elytris infra basin obsolete depressis, intra callum humerale sulcatis, striis integris, sat profunde punctatis, subsulcatis, pone medium tenuiter punc-

tatis, minus distinctis; interspatiis leviter convexiusculis; femoribus muticis.

Long. $2\frac{3}{4}$ lin.

Hab. Northern part of New Guinea.

Head minutely granulose, very finely and very remotely punctured; face narrowed between the eyes, impressed in the middle with a longitudinal groove, which runs upwards from the apex of the epistome; the latter much longer than broad, not separated from the front, its apical sutures being entirely obsolete; sides straight, slightly converging backwards; anterior border moderately concave-emarginate; surface remotely punctured; labrum piceo-fulvous, its anterior margin deeply notched; jaws black; eyes larger than in *R. purpurea;* antennæ black, three lower joints obscure fulvous. Thorax more than twice as broad as long; sides rounded and converging from base to apex; anterior angles acute, subtuberculate; hinder angles thickened; surface very minutely granulose, very sparingly impressed here and there with small but deep punctures. Scutellum rather longer than broad, semiovate, its apex acute. Elytra similar in form to those of *R. purpurea;* punctures placed more distantly on the striæ, larger and more deeply impressed in front, finer behind the middle than in that species, the interspaces less convex.

R. fraternalis differs also from *R. purpurea* in the sparingly punctured thorax, the different form of the epistome, and in the narrow space between the eyes.

19. *Rhyparida scutellata*, n. sp.

Subelongata, convexa, viridi-cærulea, nitida; corpore subtus, scutello antennisque pallide rufo-piceis, his basi fulvis; thorace sat fortiter, subremote punctato; elytris thorace multo latioribus, parallelis, infra basin obsolete excavatis, striis integris, ante medium fortiter, pone medium subtenuiter punctatis, interspatiis planis, minute sed subremote punctatis; femoribus muticis.

Long. $2\frac{1}{2}$ lin.

Hab. Waigiou.

Head remotely granulose, finely and remotely punctured; front impressed with a longitudinal groove; apex of epistome continuous with and on the same plane with the front, the apical sutures being entirely obsolete; sides of epistome straight and parallel; anterior border slightly angulate-emarginate; labrum fulvous;

jaws nigro-piceous. Thorax twice as broad as long; sides rounded and converging from base to apex; hinder angles subtuberculate; surface subremotely impressed with round shallow punctures, irregular in size, largest on the sides and base, smaller on the anterior disk. Scutellum rufo-piceous, semiovate, its apex subacute. Elytra much broader than the thorax, parallel, obsoletely excavated below the basilar space, deeply sulcate within the humeral callus, the latter subprominent; striæ entire; interspaces plane, very finely and subremotely punctured.

20. *Rhyparida submetallica*, n. sp.

Subelongata, convexa, nigra, nitida; abdomine nigro-piceo; thorace fortiter punctato; elytris obscure nigro-æneis, infra basin et intra callum humerale excavatis, striis sulcatis, distincte punctatis, apicem versus fere obsoletis; femoribus muticis.

Long. $2\frac{3}{4}$ lin.

Hab. Tondano.

Head minutely granulose on the vertex, finely but not closely punctured; epistome longer than broad, subcuneiform, the apical suture obsolete for a short space in the middle; anterior border trisinuate, the middle notch concave, broad; surface subrugose-punctate; the usual longitudinal groove on the front obsolete; labrum and jaws nigro-piceous; antennæ slender, two lower joints obscure fulvous. Thorax more than twice as broad as long; sides regularly rounded, obliquely converging in front, all the angles armed with a stout obtuse tooth; surface coarsely and irregularly punctured. Scutellum semiovate, its apex subacute. Elytra broader than the thorax, parallel, slightly but distinctly excavated below the basilar space, longitudinally impressed within the humeral callus, the latter subprominent; striæ sulcate in front, somewhat strongly punctured, on the hinder disk they become less distinct, and are nearly lost towards the apex; interspaces in front distinctly convex, gradually flattened as they approach the apex.

21. *Rhyparida impressicollis*, n. sp.

Oblonga, convexa, subtus piceo-fulva, nitida, supra piceo-cuprea; antennis fuscis, basi fulvis; thorace fortiter subcrebre punctato; elytris violaceo-æneis, cupreis, infra basin

non excavatis ; striis integris, sulcatis, sat fortiter punctatis ; interspatiis convexiusculis ; femoribus muticis.

Long. $2\frac{2}{3}$ lin.

Hab. New Guinea (Dorey).

Head granulose, coarsely punctured ; front impressed with the usual longitudinal groove, which runs upwards nearly to the vertex ; epistome broader than long, not separated from the front, the apical sutures being obsolete ; sides slightly rounded, and converging backwards ; anterior border very slightly concave-emarginate ; labrum and base of jaws fulvous, apical half of the latter black ; eyes large ; lower half of antennæ pale fulvous, outer half fuscous. Thorax rather more than twice as broad as long ; sides rounded, obliquely converging from the middle to the apex ; all the angles obsoletely tuberculate ; surface minutely granulose, coarsely and somewhat closely punctured. Scutellum obscure fulvous, scarcely longer than broad, its apex subacute. Elytra scarcely broader than the thorax, similar in form and punctuation to *R. purpurea* (*ante*, p. 174).

The single specimen from which the above description is drawn up is immature, and the coloration may differ somewhat in a fully-developed individual ; the broad epistome and coarsely punctured thorax will, however, always separate it from its allies.

22. *Rhyparida cupreata*, n. sp.

Elongata, convexa, nigro-picea, nitida, supra cuprea ; tarsis pallidis ; antennis nigris, basi fulvis ; thorace elytrorum latitudini fere æquali, subcrebre punctato ; elytris infra basin non excavatis ; striis integris, sulcatis, fortiter punctatis ; interspatiis convexiusculis ; femoribus muticis.

Long. $2\frac{1}{2}$ lin.

Hab. Southern part of New Guinea.

Head coarsely punctured, vertex swollen ; epistome scarcely broader than long, pentagonal, separated from the front, the apical sutures being entire ; apical angle acute, produced upwards on the front into a deep longitudinal groove ; sides straight and parallel, middle of anterior border moderately concave-emarginate ; surface rather more coarsely punctured than the front ; labrum and four lower joints of antennæ fulvous ; jaws black. Thorax scarcely more than twice as broad as long ; sides rounded, and converging from base to apex, very slightly sinuate just behind the middle, all the angles thickened ; transversely convex

above, sides obliquely deflexed in front, surface coarsely and somewhat closely punctured. Scutellum not longer than broad, broadly semiovate, its apex subacute. Elytra slightly broader than the thorax, parallel, not excavated below the basilar space; striæ deeply punctured, the punctures of equal depth and size up to the apex.

R. cupreata may be known from the preceding by its narrower and more parallel form.

23. Rhyparida mœsta, n. sp.

Oblonga, convexa, nigra, nitida; antennis basi fulvis; thorace disco leviter sed distincte, ad latera sat fortiter punctato; elytris obscure nigro-purpureis, infra basin vix excavatis; striis integris, ante medium sat fortiter, pone medium minus profunde punctatis; interspatiis obsolete convexiusculis; femoribus muticis.

Long. 2 lin.

Hab. Northern part of New Guinea.

Head granulose, coarsely punctured; epistome distinctly separated from the front, semiovate, the lateral sutures ill-defined; middle of anterior border deeply concave-emarginate; labrum and two lower joints of antennæ obscure fulvous. Thorax rather more than twice as broad as long; sides rounded and converging from base to apex, all the angles thickened; surface finely but distinctly punctured on the disk, more strongly punctured on the sides, very minutely granulose. Scutellum scarcely broader than long, broadly semiovate; its apex broadly rounded. Elytra broader than the thorax, subparallel, scarcely excavated below the basilar space, longitudinally sulcate within the humeral callus, the latter subprominent; striæ strongly punctured in front, sulcate, less deeply punctured behind the middle; interspaces slightly convex, less distinctly so behind the middle.

24. Rhyparida laticollis, n. sp.

Late oblonga, nigra, nitida, subtus obscure nigro-picea; thorace elytrorum latitudini æquali, subcrebre punctato; elytris infra basin non excavatis; striis ante medium distincte subfortiter punctatis, leviter sulcatis; interspatiis obsolete convexiusculis; striis pone medium minus distinctis, apicem versus fere deletis; interspatiis planis; femoribus muticis.

Long. $2\frac{1}{2}$ lin.

Hab. Borneo.

Head granulose, finely but distinctly punctured; lower portion

of the front impressed with a longitudinal groove, which runs upwards from the apex of the epistome; the latter entirely separated from the front, pentagonal, apical angle nearly rectangular, apex acute; sides straight, and very slightly converging backwards; anterior border concave-emarginate, angles of the concavity acute, slightly produced; surface more coarsely punctured than the front; antennæ and labrum entirely black. Thorax equal in breadth to the elytra; sides rounded, converging in front; anterior angles obsolete, hinder angles tuberculate; surface deeply impressed with large round punctures. Scutellum as broad at the base as long, semiovate; sides converging backwards; apex rounded. Elytra parallel, not excavated below the basilar space; striæ strongly punctured in front, subsulcate, the interspaces minutely but not closely punctured, slightly but distinctly convex; behind the middle the striæ are much less deeply punctured and very fine, and near the apex the punctures are visible only under a lens; on the hinder disk the interspaces gradually flatten and become plane before their termination.

The shorter body, broadly dilated thorax, and entirely black colour above, will at once distinguish this species from its congeners.

25. *Rhyparida picea*, n. sp.

Subelongata, convexa, nigro-picea, nitida; pedibus obscure rufo-piceis; antennis basi rufo-fulvis; thorace sparse hic illic sat profunde punctato; elytris thorace latioribus, parallelis, infra basin vix transversim excavatis; striis integris, ante medium sat fortiter punctatis, leviter sulcatis; interspatiis convexiusculis, punctis pone medium minus fortiter impressis, apicem versus fere deletis; interspatiis fere planis; femoribus muticis.

Long. 3 lin.

Hab. Southern part of New Guinea.

Head very finely granulose, finely punctured; epistome entirely separated from the front, pentagonal, scarcely longer than broad, apical angle acute; sides straight and parallel in front, slightly converging near the apex; middle of anterior border deeply concave-emarginate, angles of the emargination produced, obtuse; surface deeply impressed with large punctures; lower portion of the front impressed with a deep groove, which runs upwards from the epistome; a broad line, running along the inner and upper margin of the eye, together with the labrum, rufo-piceous; anterior border

of the labrum feebly trilobate; four lower joints of antennæ obscure fulvous. Thorax twice as broad as long; sides rounded and converging from base to apex; anterior angles armed with an obtuse tooth, hinder angles tuberculate; surface finely granulose, sparingly impressed here and there with large deep punctures. Scutellum scarcely longer than broad; sides converging towards the apex, which is subacute. Elytra broader than the thorax, parallel, scarcely excavated below the basilar space; striæ strongly punctured and subsulcate on the anterior disk, the punctures gradually becoming finer posteriorly until they are almost obsolete near the apex; interspaces finely punctured, slightly but distinctly convex in front, plane on the hinder disk.

26. *Rhyparida inconstans*, Baly.

Desc. New Gen. and Spec. Phyt. p. 10.

Oblonga, convexa, subnitida; thorace subcrebre punctato; elytris thorace paullo latioribus, parallelis, infra basin leviter transversim excavatis; striis integris, sat fortiter punctatis, vix sulcatis, pone medium minus fortiter punctatis; interspatiis obsolete convexiusculis, prope suturam fere planis; femoribus muticis.

Var. A. Corpore rufo-fulvo; elytris nigro-piceis, apice late rufo-fulvo.

Var. B. Corpore toto fusco-fulvo.

Var. C. Corpore piceo; pedibus obscure rufis.

Long. 3—3½ lin.

Hab. Batchian, Ternate.

Head granulose, finely punctured; epistome entirely separated from the front, scarcely broader than long, pentagonal; postero-lateral angles rounded; sides straight and parallel, slightly rounded near the apex; anterior border deeply concave-emarginate, produced on either side of the excavation into a short tooth; surface punctured in a similar manner to the front, the latter impressed with the usual longitudinal groove; labrum and antennæ obscure rufo-fulvous; jaws black. Thorax more than twice as broad as long; sides nearly straight and parallel at the base, rounded and converging from the middle to the apex; hinder angles thickened, anterior produced into a short obtuse tooth; surface granulose, distinctly and somewhat closely punctured. Scutellum broadly semiovate, its apex rounded. Elytra broader than the thorax, parallel, very feebly excavated below the basilar

space, distinctly impressed within the humeral callus, the latter subprominent ; striæ subsulcate, entire, coarsely and deeply punctured in front, less deeply impressed behind the middle ; interspaces slightly convex, transversely rugulose below the basilar space, plane near the hinder half of the suture.

Broader and more coarsely punctured on the elytra than *R. picea ;* very variable in colour.

27. *Rhyparida frontalis*, n. sp.

Late oblonga, convexa, piceo-nigra, nitida ; labro fronteque rufo-piceis ; antennis basi fulvis ; thorace sat crebre punctato ; elytris thorace paullo latioribus, parallelis, infra basin obsolete impressis ; striis integris, fortiter punctatis, punctis pone medium minus fortiter impressis, apicem versus fere obsoletis ; interspatiis antice convexiusculis, pone medium planis ; femoribus muticis.

Long. $2\frac{1}{3}$ lin.

Hab. New Guinea (Dorey).

Head granulose ; front rufo-piceous, very minutely and remotely punctured, its lower portion impressed with the usual groove ; epistome nearly black, rather longer than broad, pentagonal, its apical angle acute ; sides straight and parallel ; anterior margin deeply concave-emarginate in the middle, angles of the notch slightly produced, obtuse ; surface more strongly punctured than the front ; labrum pale rufo-piceous, its anterior border notched ; inner border of the eyes almost entire ; basal half of the antennæ pale fulvous ; jaws black. Thorax twice as broad as long ; sides diverging at the extreme base, thence rounded and obliquely converging to the apex ; hinder angles tuberculate, anterior rounded, obsolete ; surface finely punctured on the disk, more strongly punctured on the sides ; middle portion of anterior border obscure rufo-piceous. Scutellum obscure rufo-piceous, scarcely broader at the base than long, broadly semiovate ; apex obsoletely angular. Elytra rather broader than the thorax, subparallel, very indistinctly excavated below the basilar space ; striæ strongly and deeply punctured on the anterior disk, distinctly sulcate ; on the hinder disk they gradually become more finely punctured, and are nearly lost at the apex ; interspaces convex in front, plane behind the middle.

28. *Rhyparida sordida*, Baly.

Desc. New Gen. and Spec. Phyt. p. 10.

Late oblonga, convexa, piceo-nigra, nitida; antennis piceo-fulvis; capite pedibusque pallide rufo-piceis; thorace subfortiter punctato; interspatiis ad latera reticulato-strigosis; elytris thoracis basi vix latioribus, infra basin leviter excavatis; striis ante medium fortiter punctatis, interspatiis convexiusculis; striis pone medium tenuiter punctatis, prope apicem fere deletis, interspatiis planis; femoribus muticis.

Var. A. Pedibus piceo-nigris.

Long. $2\frac{1}{4}-2\frac{1}{2}$ lin.

Hab. Batchian, Ternate.

Head granulose, finely and distantly punctured; epistome separated from the front, broader than long, apical angle subacute, postero-lateral angles rounded; sides straight and parallel; middle of the anterior border broadly concave-emarginate, angles of the emargination slightly produced, subacute; surface impressed near the apex with a few deep punctures; basal joints of antennæ paler than the rest; labrum rufo-fulvous, its anterior border slightly notched; jaws black. Thorax rather more than twice as broad as long; sides rounded, converging from behind the middle to the apex; anterior angles rounded, obsolete, hinder angles thickened; surface coarsely and somewhat closely punctured; interspaces on the sides thickened, closely reticulate-strigose; the middle of the anterior border rufo-piceous. Scutellum longer than broad, semiovate. Elytra scarcely broader than the thorax, similar in form and punctuation to *R. frontalis*, the only difference being that the punctures in front are fewer and less deeply impressed, the interspaces being at the same time flatter and less convex; apex of the elytra sometimes stained with rufo-piceous. The broader epistome, more coarsely punctured thorax, and longer scutellum, also serve to separate it from the above-named species.

29. *Rhyparida variabilis*, n. sp.

Late oblongo-ovata, convexa, piceo-fulva, nitida; antennis (basi fulvâ exceptâ) fuscis; thorace elytrorum latitudini æquali, tenuiter punctato; elytris infra basin transversim excavatis; striis ante medium distincte impressis, pone medium fere deletis; interspatiis planis; femoribus subtus dente minuto armatis.

Var. A. Elytris totis piceo-fulvis.

Var. B. Elytris piceo-fulvis, plagâ communi nigro-piceâ prope medium suturæ ornatis.

Var. C. Elytris totis nigris.

Long. $1\frac{3}{4}$—$2\frac{1}{4}$ lin.

Hab. New Guinea (Dorey).

Head granulose; front impressed with the usual longitudinal groove, impunctate; epistome distinctly longer than broad, pentagonal, the apical sutures ill-defined, apical angle obtuse; sides straight, slightly converging backwards; middle of the anterior border broadly concave-emarginate, angles of the notch acute, scarcely produced; surface remotely punctured; jaws rufo-piceous. Thorax more than twice as broad as long; sides rounded at the base, obliquely converging and slightly rounded from behind the middle to the apex; anterior angles rounded, obsolete, hinder angles tuberculate; surface finely but not closely punctured. Scutellum scarcely longer than broad, broadly semi-ovate. Elytra not broader than the thorax, parallel, somewhat deeply excavated below the basilar space, longitudinally sulcate within the humeral callus; striæ strongly and coarsely punctured on the transverse depression, more finely punctured on the basilar space, which appears very slightly thickened, puncturing very fine and nearly obsolete towards the apex; interspaces plane.

Broader and more finely punctured than *R. frontalis*, the elytra more strongly excavated below the basilar space.

30. *Rhyparida tibialis*, n. sp.

Oblonga, parallela, convexa, picea, nitida; facie pedibusque pallide rufo- aut fulvo-piceis; antennis obscure fulvis; thorace elytrorum latitudini æquali, distincte punctato; elytris parallelis, infra basin leviter excavatis; striis integris, ante medium sat fortiter punctatis, obsolete sulcatis, punctis infra medium distinctis; interspatiis antice obsolete convexiusculis, pone medium planis; femoribus subtus unidentatis.

Mas.—Femoribus incrassatis, tibiis anticis compresso-dilatatis.

Long. $2\frac{1}{4}$ lin.

Hab. Mysol.

Head smooth, subopake; epistome separated from the front, scarcely longer than broad, pentagonal; sides nearly straight, parallel, apical angle acute; anterior border with its middle broadly concave-emarginate, angles of the notch subacute; surface distinctly but remotely punctured; antennæ pale fulvous, slender,

nearly equal to the body in length. Thorax equal in breadth to the elytra, slightly broader in the ♂; sides rounded, converging from the middle to the apex, apical angle obsolete, hinder angle armed with a small obtuse tooth; surface distinctly punctured. Scutellum scarcely longer than broad, semiovate. Elytra parallel, very indistinctly excavated below the basilar space, distinctly sulcate within the humeral callus; striæ entire, coarsely punctured, the punctures less strongly impressed, although distinct, towards the apex; interspaces plane. The lower two-thirds of the anterior tibiæ flattened and dilated in the ♂.

Near *R. frontalis*, but smaller and more parallel than that species; the ♂ is easily separated by the broader thorax and dilated anterior tibiæ.

31. *Rhyparida approximata*, n. sp.

Oblonga, parallela, convexa, nigro-picea; femoribus basi fronteque rufo-piceis; antennis pallide fulvis, extrorsum fuscis; thorace elytrorum latitudini æquali, disco subremote tenuiter, ad latera magis fortiter subcrebre punctato; elytris parallelis, infra basin leviter excavatis; striis integris, sat fortiter punctatis, punctis prope apicem minus fortiter impressis; interspatiis ante medium obsolete convexiusculis, apicem versus planis; femoribus subtus dente parvo armatis.

Long. $2\frac{1}{3}$ lin.

Hab. Mysol.

Head very minutely punctured, subopake; epistome scarcely broader than long, distinctly separated from the front, pentagonal, apical angle obtuse; sides straight and nearly parallel; anterior border slightly concave-emarginate, angles of the notch not produced, obtuse; surface distinctly punctured, nigro-piceous; front and labrum rufo-piceous; antennæ pale fulvous, apex dark fuscous. Thorax equal in breadth to the elytra; sides rounded, converging from the middle to the apex, apical angle obtuse, nearly obsolete; surface distinctly and somewhat closely punctured on the sides, finely punctured on the disk. Scutellum as broad as long, broadly semiovate. Elytra parallel, broadly and very slightly excavated below the basilar space, strongly sulcate within the humeral callus, the latter subprominent; striæ entire, strongly punctured in front, sulcate, the interspaces obsoletely convex, thickened and subcostate near the lateral border; on the hinder portion of the elytra the punctures, although distinct, are much less strongly impressed, and the interspaces plane.

Longer and narrower than *R. frontalis;* the thorax more finely punctured.

32. *Rhyparida obsoleta*, n. sp.

Late oblongo-ovata, convexa, picco-fulva, nitida; antennis flavis, mandibulis piceis; thorace elytrorum latitudini fere æquali, disco magis tenuiter, ad latera subfortiter punctato; elytris infra basin leviter excavatis; striis integris, ante medium obsolete sulcatis, sat profunde impressis, punctis pone medium minus distinctis; interspatiis remote tenuissime punctatis, antice obsolete convexiusculis, pone medium planis; femoribus muticis.

Long. 2 lin.

Hab. New Guinea (Dorey).

Head distinctly punctured; front impressed with a short longitudinal groove; epistome forming a single piece with the front, all the sutures being entirely wanting, its anterior border very slightly concave-emarginate, the angles of the notch not produced, very obtuse; antennæ two-thirds the length of the body, very indistinctly thickened towards the apex; jaws black. Thorax as broad as the elytra; sides nearly straight and parallel at the base, obliquely rounded and converging from behind the middle to the apex; the anterior angles rounded, obsolete, the hinder rectangular; surface closely punctured on the sides, less closely on the disk. Scutellum as broad at the base as long, subtrigonate, sides rounded. Elytra subparallel, broadly but very slightly excavated below the basilar space; striæ distinctly and somewhat deeply punctured in front, interspaces obsoletely convex; finely punctured behind the middle, interspaces plane.

The plane distinctly-punctured front, and the total absence of sutural lines between it and the epistome, will at once distinguish this species from its allies.

33. *Rhyparida geniculata*, Baly.

Journ. of Entom. i. p. 288.

Anguste oblonga, convexa, nigra, subnitida; capite, scutello, corporeque subtus, obscure piceis; abdomine, antennis pedibusque fulvis, illis extrorsum fuscis, his genibus, tibiis anticis extus, tarsisque piceis; elytrorum striis subsulcatis, interspatiis paullo convexis; femoribus simplicibus.

Long. $2\frac{1}{2}$ lin.

Hab. New Guinea (Dorey).

Head finely and subremotely punctured; epistome nigro-piceous, distinctly separated from the front, as broad as long; sides straight and parallel, apical angle very obtuse; anterior margin deeply concave-emarginate, angles of the emargination produced, acute; surface indistinctly concave, more deeply punctured than the front; antennæ slender, filiform, rather shorter than the body. Thorax nearly twice as broad at the base as long; sides rounded, narrowed in front, strongly deflexed at the anterior angles, all the angles armed with a minute tooth; above moderately convex, impressed on either side with a small but distinct fovea, the rest of the surface smooth, nearly impunctate. Scutellum semiovate. Elytra broader than the thorax, oblong, scarcely narrowed behind, apex acutely rounded; above convex, obsoletely excavated transversely below the basilar space; the striæ entire, strongly punctured, distinctly sulcate, their interspaces slightly rounded. Legs fulvous, all the knees and the outer edge of the front pair of tibiæ dark piceous, hinder tibiæ stained with pale piceous; tarsi pale piceous.

34. *Rhyparida Aruensis*, n. sp.

Subelongata, picea, nitida; antennis pedibusque fulvis, illis extrorsum, his genibus infuscatis; thorace subopaco, fere impunctato; elytris thorace paullo latioribus, infra basin vix excavatis; striis integris, leviter sulcatis, sat profunde punctatis, punctis apicem versus minus fortiter impressis; femoribus muticis.

Var. A. Corpore obscure fulvo, pedibus flavis.

Long. 3 lin.

Hab. Aru Islands, New Guinea.

Front impunctate, its lower end impressed with a very short longitudinal groove; epistome broader than long, not separated from the front, the apical sutures being entirely obsolete; sides rounded, parallel; anterior border broadly concave-emarginate, angles of emargination produced, subacute; surface impressed with large deep punctures; labrum and antennæ fulvous, the latter slender, their outer half fuscous. Thorax twice as broad as long; sides rounded and converging from base to apex, nearly parallel at the base, all the angles armed with an obtuse tubercle; surface subnitidous, very minutely punctured. Scutellum broader at the base than long; apex obtusely angled, extreme apex acute. Elytra broader than the thorax, very faintly excavated below the basilar space; striæ entire, strongly punctured in front, less

deeply punctured posteriorly, subsulcate; the interspaces obsoletely convex.

R. Aruensis resembles *R. femorata* (*ante*, p. 172), but may be at once known by its much more finely punctured thorax.

35. *Rhyparida confusa*, n. sp.

Oblonga, convexa, piceo-fulva, nitida; thorace hic illic subfortiter punctato; elytris thorace paullo latioribus, subparallelis, infra basin paullo excavatis; striis ante medium sat fortiter punctatis, modice sulcatis, interspatiis convexiusculis; striis pone medium minus fortiter punctatis, iis disci centralis apicem versus confusis, interspatiis planis, punctis piceis; femoribus muticis.

Long. 3—3½ lin.

Hab. Ceram, Gilolo, Batchian.

Front slightly swollen, minutely but distinctly punctured, its lower end impressed with a deep longitudinal groove; epistome distinctly separated from the front, longer than broad, pentagonal, the apical angle acute; sides straight and parallel; anterior margin broadly concave-emarginate, angles of the notch obtuse, moderately produced; surface deeply punctured; jaws black. Thorax rather more than twice as broad as long; sides rounded and converging from base to apex, all the angles tuberculate; surface slightly unequal in some specimens, irregularly but not closely punctured. Scutellum longer than broad, semiovate. Elytra rather broader than the thorax, broadly oblong, subparallel, distinctly but slightly excavated below the basilar space; striæ piceo-punctate, strongly impressed and subsulcate in front, less deeply punctured posteriorly; on the middle disk, near its apex, the striæ become confused and irregular; interspaces on the anterior two-thirds of the surface slightly convex, plane on the hinder third.

The irregular punctuation of the apex of the elytra in this species will distinguish it from its allies.

36. *Rhyparida instabilis*, n. sp.

Anguste oblonga, subovalis, convexa, pallide rufo-picea, nitida; elytris, basi exceptâ, nigro-piceis; thorace subcrebre sed minus irregulariter punctato, utrinque unifoveolato; elytris infra basin distincte excavatis; striis distinctis, ante medium fortiter punctatis, sulcatis, interspatiis convexiusculis; pone

medium minus fortiter punctatis, interspatiis fere planis; femoribus muticis.

Var. A. Thorace elytrisque totis nigro-piceis.

Var. B. Corpore pallide piceo-fulvo.

Long. $2\frac{1}{2}$—$3\frac{1}{4}$ lin.

Hab. New Guinea (Dorey). Var. B, Mysol.

Front smooth, nitidous, impunctate, its lower portion impressed with a short longitudinal groove; epistome scarcely longer than broad, distinctly separated from the front, the apical angle very obtuse; sides slightly rounded, nearly parallel; anterior border deeply subangulate-emarginate, angles of the notch produced, acute; surface irregularly but not closely punctured; jaws black. Thorax twice as broad as long; sides rounded and converging from base to apex, nearly parallel at the extreme base, all the angles armed with an obtuse tooth; surface irregularly but not very closely or coarsely punctured. Scutellum slightly broader at the base than long, subtrigonate, the sides rounded. Elytra broader than the thorax, the sides being very slightly oval, subparallel, distinctly excavated below the basilar space; striæ strongly impressed in front, subsulcate, the interspaces slightly convex; posteriorly less deeply punctured, the interspaces nearly plane.

Similar in form to *R. inconstans* (*ante*, p. 180); the elytra less coarsely punctured; the puncturing of the epistome coarser and more distant.

37. *Rhyparida intermedia*, n. sp.

Anguste oblonga, parallela, convexa, pallide picea, nitida; antennis, basi exceptâ, fuscis; thorace elytrorum latitudini æquali, nitido, tenuiter sed distincte punctato; elytris infra basin leviter excavatis; striis integris, antice sulcatis, sat fortiter punctatis, interspatiis convexiusculis; punctis pone medium minus fortiter impressis, apicem versus fere deletis, interspatiis planis; femoribus obscure fulvis, subtus dente brevi armatis.

Long. $2\frac{2}{3}$ lin.

Hab. Waigiou.

Front finely granulose, opake, impressed with the usual longitudinal groove; epistome distinctly separated from the front, scarcely longer than broad, pentagonal, apical angle acute; sides straight and parallel; anterior border broadly concave-emarginate, angles of the notch scarcely produced, very obtuse;

surface slightly irregular, finely but deeply punctured; jaws black; labrum obscure fulvous; antennæ pale fulvous, their outer half fuscous. Thorax twice as broad as long; sides rounded, obliquely converging from behind the middle to the apex; apical angle obtuse, unarmed, hinder angle armed with a short obtuse tooth; surface finely but deeply punctured. Scutellum scarcely broader at the base than long, broadly semiovate. Elytra not broader than the thorax, parallel, very feebly excavated below the basilar space; striæ entire, strongly punctured and subsulcate in front, the puncturing finer below the middle, nearly obsolete near the apex; interspaces slightly convex in front, plane on the hinder disk; the punctures dark piceous.

This species agrees in size with *R. Aruensis* (*ante*, p. 186) and its allies; in the form of the thorax, and in the absence of tubercles on its anterior angles, with *R. tibialis* (*ante*, p. 183) and allied forms.

38. *Rhyparida fulvipes*, n. sp.

Subelongata, convexa, picea, nitida; antennis, elytrorum apice pedibusque obscure fulvis; thorace elytris fere æquilato, sat fortiter punctato; elytris lateribus fere parallelis, infra basin non excavatis; striis integris, leviter sulcatis, sat profunde punctatis, interspatiis convexiusculis, iis ad latera subcostatis; femoribus paullo incrassatis, muticis.

Long. $2\frac{2}{3}$ lin.

Hab. Ké.

Head short, broad; front distinctly and somewhat closely punctured, its lower end impressed with a very short longitudinal groove, which runs upwards from the apex of the epistome; the latter much broader than long, distinctly separated from the front, pentagonal; sides rounded and converging backwards, the postero-lateral angles obsolete; anterior border broadly concave-emarginate, each angle of the notch produced into a short subacute tooth; surface concave, deeply punctured; labrum fulvous; jaws black. Thorax nearly twice as broad as long; sides regularly rounded, scarcely converging in front, all the angles tuberculate; surface deeply but not very closely punctured. Scutellum longer than broad, narrowly semiovate. Elytra slightly broader than the thorax, subparallel, not excavated below the basilar space; striæ entire, subsulcate, strongly punctured, the punctures of nearly equal depth up to the apex; interspaces very slightly convex. Thighs unarmed.

This species is very similar in the form both of the body and epistome to *R. pulchella* (*ante*, p. 165); it is possible that it may be a local variety of that insect.

39. *Rhyparida suspecta*, n. sp.

Subelongata, convexa, piceo-fulva, nitida; antennis extrorsum genibusque infuscatis; thorace disco inæquali, ad latera irregulariter sed leviter punctato; elytris infra basin obsolete transversim impressis, striis integris, ante medium sat fortiter, pone medium minus profunde punctatis, interspatiis obsolete convexiusculis; femoribus muticis.

Long. 3 lin.

Hab. Mysol.

Front very minutely punctured, impressed at its lower end with a short deep longitudinal groove; epistome not longer than broad, pentagonal, not entirely separated from the front, the apical sutures, although deeply impressed, being more or less interrupted; sides straight and parallel, anterior border deeply and somewhat broadly concave-emarginate, angles of the emargination produced, acute; surface coarsely and deeply but distantly punctured; jaws black. Thorax scarcely more than twice as broad as long; sides rounded, converging in front, all the angles tuberculate; surface very slightly unequal, distinctly punctured, the punctures fine on the disk, coarser and deeper on the sides, congregated here and there into irregular patches. Scutellum scarcely longer than broad, subpentagonal, sides obliquely converging backwards. Elytra broader than the thorax, nearly parallel, narrowly oblong, slightly but somewhat broadly excavated below the basilar space; striæ entire, slightly sulcate, in front deeply punctured, and the interspaces slightly convex; posteriorly the striæ are less strongly punctured, and the interspaces obsoletely convex.

Narrower than *R. fulvipes*; the sides of the thorax more regularly rounded, the striæ on the elytra more regular near the apex.

40. *Rhyparida placida*, n. sp.

Oblonga, convexa, piceo-fulva, subnitida; thorace subopaco, sub lente minutissime punctato; elytris infra basin vix excavatis; striis integris, sat fortiter punctatis, subsulcatis, punctis pone medium minus fortiter impressis; interspatiis

leviter convexiusculis; femoribus subtus dente minuto armatis.

Long. $2\frac{1}{3}$ lin.

Hab. Ké.

Head granulose, lower portion of front impressed with a shallow longitudinal groove; epistome rather longer than broad, pentagonal, not distinctly separated from the front, the apical sutures being replaced by an interrupted row of punctures; sides straight and parallel, anterior border deeply concave-emarginate, angles of the notch produced, obtuse; surface remotely punctured; jaws nigro-piceous; eyes deeply notched. Thorax more than twice as broad as long; sides rounded, obliquely converging from behind the middle to the apex, all the angles armed with an obtuse tooth; finely granulose, remotely impressed with minute punctures, which are only visible under a lens. Scutellum as broad at the base as long, its apex obtuse. Elytra scarcely broader than the thorax, oblong, very slightly excavated below the basilar space; surface nitidous, minutely granulose; striæ entire, subsulcate, more finely punctured below the middle; interspaces slightly convex.

41. *Rhyparida separata*, n. sp.

Anguste oblonga, convexa, parallela, pallide piceo-fulva, nitida; pectore, abdomine, antennis extrorsum, genibusque nigro-piceis; thorace elytris fere æquilato, subcrebre punctato, disco piceo; elytris nigris, infra basin et intra callum humerale excavatis; striis ante medium distincte punctatis, punctis pone medium minutis, apicem versus deletis; interspatiis planis; femoribus subtus dente minuto armatis.

Long. 2 lin.

Hab. Batchian.

Head granulose, lower portion of front impressed with a longitudinal groove; epistome distinctly separated from the front, pentagonal, the apical angle very obtuse, sides straight, and converging backwards; anterior border broadly but slightly concave-emarginate, the angles of the notch scarcely produced, very obtuse; jaws black; inner border of the eyes very slightly emarginate. Thorax scarcely more than twice as broad as long; sides rounded, converging from behind the middle to the apex; anterior angles obsolete, posterior tuberculate; upper surface very minutely granulose, rather closely and somewhat coarsely punctured; disk broadly stained with piceous; lateral border slightly

dilated. Scutellum as broad as long, subtrigonate, sides towards the apex rounded. Elytra scarcely broader than the thorax, oblong, parallel, slightly excavated below the basilar space; striæ somewhat strongly and deeply punctured in front, very finely punctured behind the middle, those on the middle disk entirely obsolete near the apex; interspaces plane; on the inner disk below the basilar space are a few very indistinct transverse rugæ.

Narrower and more parallel than *R. variabilis* (*ante*, p. 182); the thorax similar in shape, but more strongly punctured.

42. *Rhyparida distincta*, n. sp.

Elongata, convexa, fulva, nitida; capite thoraceque pallide piceis, hoc subcrebre sat fortiter punctato; elytris thorace latioribus, infra basin et intra callum humerale excavatis; striis integris, antice sat fortiter, postice minus fortiter punctatis; interspatiis planis; pedibus subelongatis, femoribus subtus dente brevi armatis.

Long. $2\frac{1}{4}$ lin.

Hab. Tondano.

Head distinctly but distantly punctured; epistome not separated from the front, the apical sutures obsolete, longer than broad, wedge-shaped, sides straight, anterior border broadly and very slightly concave-emarginate, angles of the notch very slightly produced; apex of jaws black. Thorax one half as broad again as long; sides rounded, converging in front, all the angles armed with an obtuse tooth; above almost subcylindrical, strongly punctured, the punctures on the sides crowded and much coarser. Scutellum longer than broad, sides subsinuate, apex obtuse. Elytra much broader than the thorax, parallel, excavated within the humeral callus and below the basilar space; striæ entire, somewhat strongly punctured in front, less deeply but distinctly punctured behind the middle; interspaces plane.

Very similar in form to *R. puncticollis* (*ante*, p. 169); differing in colour, the thorax more closely and not quite as coarsely punctured.

43. *Rhyparida diversa*, n. sp.

Oblonga, convexa, piceo-fulva, nitida; femoribus apice, tibiis tarsisque nigris; antennis extrorsum infuscatis; thorace tenuiter subremote punctato; elytris infra basin non excavatis, striis integris, pone medium minus fortiter punctatis,

antice sulcatis; interspatiis ante medium convexiusculis, postice planis; femoribus subtus dente minuto armatis.

Long. $2\frac{1}{3}$ lin.

Hab. Tondano.

Head smooth, nearly impunctate, lower portion of front impressed with a faint longitudinal groove; epistome separated from the front, longer than broad, wedge-shaped; anterior border moderately concave-emarginate, angles of the notch scarcely produced, obtuse; surface finely but subremotely punctured; jaws black; antennæ nearly equal to the body in length, outer two-thirds dark fuscous. Thorax twice as broad as long; sides rounded, converging from the middle to the apex, all the angles armed with a small obtuse tooth; surface minutely and remotely punctured. Scutellum longer than broad. Elytra broader than the thorax, broadly oblong, not impressed below the basilar space; striæ entire, somewhat deeply punctured and sulcate in front, the interspaces moderately convex; on the hinder disk the striæ more finely punctured, and the interspaces plane.

44. *Rhyparida amabilis*, n. sp.

Subelongata, parallela, pallide fulva, subnitida; mandibulis nigris; thorace opaco, sub lente minute sed remote punctato; elytris thorace vix latioribus, infra basin non excavatis, minute granulosis; striis integris, pone medium minus fortiter punctatis, ante medium leviter sulcatis; interspatiis antice leviter convexiusculis; femoribus subtus dente minuto armatis.

Long. $2\frac{1}{2}$ lin.

Hab. Northern part of New Guinea.

Head granulose; vertex swollen, convex, its upper part furnished with a longitudinal ridge; lower portion impressed with a short longitudinal groove; epistome forming a single piece with the front, its surface more strongly punctured than the latter; anterior border broadly concave-emarginate, angles of the notch slightly produced, obtuse. Thorax twice as broad as long; sides rounded, obliquely converging from behind the middle to the apex, all the angles armed with an obtuse tubercle; above granulose, very finely and remotely punctured. Scutellum oblong, its apex subangulate. Elytra scarcely broader than the thorax, parallel, not excavated below the basilar space; striæ entire, less strongly punctured behind the middle; interspaces in front slightly convex.

45. *Rhyparida inconspicua*, n. sp.

Subelongata, parallela, pallide fulva, subnitida; mandibulis nigris; thorace opaco, granuloso, impunctato; elytris infra basin obsolete depressis; striis integris, pone medium minus fortiter punctatis, punctis infuscatis; interspatiis ante medium obsolete convexiusculis; margine laterali abdominisque basi piceis; femoribus subtus dente minuto armatis.

Long. $2\frac{1}{3}$ lin.

Hab. Sulu Islands, New Guinea.

Head very finely granulose, impunctate, lower portion of front impressed with a very faint longitudinal fovea; epistome forming a single piece with the front, its anterior border concave-emarginate, slightly produced, subacute. Thorax twice as broad as long; sides rounded, converging from the middle to the apex, all the angles armed with an obtuse tooth; surface granulose, impunctate. Scutellum scarcely longer than broad, its apex rounded, obsoletely angled. Elytra very faintly excavated below the basilar space, punctured as in the preceding species; surface subnitidous, very finely granulose.

Very closely related to *R. amabilis*, of which it is possibly a variety; the thorax more regularly rounded.

46. *Rhyparida fulvescens*, n. sp.

Elongata, convexa, fulva, nitida; antennis flavis; thorace subnitido, hic illic sparse punctato; elytris thorace paullo latioribus, parallelis, convexis, infra basin leviter transversim excavatis; striis integris, sulcatis, fortiter punctatis; interspatiis convexis; femoribus muticis.

Long. 2 lin.

Hab. Gilolo.

Head granulose, front impunctate, its lower portion impressed with the usual longitudinal groove; epistome not distinctly separated from the front, the apical sutures being ill defined, longer than broad, pentagonal; sides slightly converging backwards; anterior border broadly concave-emarginate, angles of the notch produced, obtuse; surface slightly depressed, deeply and coarsely but not closely punctured; jaws rufo-piceous, their apex black. Thorax twice as broad a long; sides slightly rounded and nearly parallel at the base, obliquely converging from behind the middle to the apex; anterior angles produced into an obtuse tooth, hinder angles tuberculate; above granulose, impressed here and

there with deep punctures; apical portion of the lateral margin piceous. Scutellum broadly lanceolate-ovate. Elytra broader than the thorax, subparallel, broadly but slightly excavated below the basilar space, thickened laterally just within the outer border; striæ entire, deeply punctured, sulcate; interspaces moderately convex.

Not dissimilar in form to *R. picea* (*ante*, p. 179), but smaller than that species, differently coloured, the elytra more distinctly excavated below the base.

47. *Rhyparida opacicollis.*

Rhyparida impuncticollis, Baly, Desc. New Gen. and Spec. Phyt. p. 11.

Oblonga, convexa, fulva, nitida; thorace elytris fere æquilato, opaco, lateribus sub lente minute punctato, disco impunctato; elytris subnitidis, infra basin vix excavatis; striis integris, sat fortiter punctatis, ante medium subsulcatis, interspatiis convexiusculis; punctis pone medium minus fortiter impressis, interspatiis fere planis; femoribus muticis.

Long. $2\frac{2}{3}$ lin.

Hab. Batchian.

Head granulose, front impunctate, lower portion impressed with a fine longitudinal groove; epistome longer than broad, not separated from the front, the apical sutures obsolete; sides straight and parallel, anterior margin deeply subangulate-emarginate, angles of the notch scarcely produced, very obtuse; surface remotely punctured; eyes piceous, their inner edge deeply emarginate; jaws piceous. Thorax more than twice as broad as long; sides rounded and diverging from the base to behind the middle, thence obliquely converging to the apex, all the angles tuberculate; upper surface opake, granulose, very minutely and remotely punctured on the sides. Scutellum longer than broad, semiovate. Elytra scarcely broader than the thorax, parallel, finely granulose, nitidous, very faintly excavated below the basilar space; striæ strongly piceo-punctate, subsulcate in front and along the suture, the interspaces slightly but distinctly convex; behind the middle the punctures are finer and the interspaces plane.

I have thought it best to change the name of this insect, as the one, *impuncticollis*, originally given by me to the species, is, I find on closer examination, inaccurate.

48. *Rhyparida brunnea*, n. sp.

Subelongata, parallela, brunnea, nitida; antennis, pectore pedibusque obscure fulvis; femoribus et tibiis apice tarsisque piceis; thorace elytris æquilato, granuloso, disco tenuiter subcrebre punctato; elytris infra basin late transversim excavatis; striis infra basin sat fortiter punctatis, punctis pone medium minus distinctis, apicem versus fere deletis; spatio basilari paullo elevato, minus fortiter punctato; interspatiis planis, nitidissimis; femoribus subtus dente minuto armatis.

Mas.—Tibiis anticis compresso-dilatatis.

Long. $2\frac{1}{2}$ lin.

Hab. Batchian.

Head granulose, very finely and remotely punctured, lower portion of front impressed with a deep longitudinal groove; epistome longer than broad, scarcely separated from the front, the apical sutures being ill defined, apical angle obtuse; sides slightly rounded, anterior border broadly concave-emarginate, angles of the notch obtuse, not produced; jaws black; antennæ slender, equal to the body in length. Thorax twice as broad as long; sides rounded, slightly converging in front; anterior angles obsolete, hinder armed with an obtuse tooth; above moderately convex, finely granulose, disk impressed with fine but distinct punctures. Scutellum longer than broad, its apex round. Elytra subparallel, slightly flattened on the disk, swollen laterally just within the outer margin, strongly and broadly excavated below the basilar space, longitudinally sulcate within the humeral callus; basilar space slightly thickened; striæ somewhat strongly punctured below the base, finely punctured on the basilar space and behind the middle, nearly obsolete near the apex; interspaces plane.

The anterior tibiæ in the ♂ are dilated as in the same sex in *R. tibialis* (*ante*, p. 183). The larger size, the entirely different sculpture of the elytra, and the difference in form of epistome, will separate it from that species.

49. *Rhyparida Javanensis*, n. sp.

Anguste oblonga, parallela, nigro-picea, nitida; capite piceo-fulvo; antennis pedibusque obscure flavis; thorace elytris æquilato, subcrebre punctato; elytris parallelis, apice piceo-fulvis, infra basin non excavatis; striis integris, ante medium

sat fortiter punctatis, pone medium minus distinctis, apicem versus fere deletis; interspatiis antice obsolete convexiusculis, postice planis; femoribus muticis.

Long. 2 lin.

Hab. Java.

Head finely granulose, minutely and distantly punctured; lower portion of front impressed with the usual longitudinal groove; epistome not longer than broad, not separated from the front, the sutural angles obsolete; sides straight and parallel; anterior margin concave-emarginate, angles of the notch not produced, very obtuse; surface more strongly punctured than the front; jaws black; eyes prominent. Thorax rather more than twice as broad as long; sides rounded, converging from the middle to the apex, apical angle obsolete, hinder angle armed with an obtuse tooth; surface nitidous, somewhat closely punctured. Scutellum longer than broad, semiovate. Elytra not broader than the thorax, parallel, not excavated below the basilar space; striæ strongly punctured on the anterior disk, more finely punctured posteriorly, nearly obsolete towards the apex; interspaces obsoletely convex in front, plane posteriorly.

Nearly allied in form to *R. tibialis* (*ante*, p. 183); separated from that species by the shorter epistome and by the absence of sutural lines between it and the front; the single specimen from which I have drawn the above description is a ♀, the ♂ I do not know.

50. *Rhyparida obliterata*, n. sp.

Elongata, parallela, nigro-picea, nitida; antennis flavis; tarsis piceo-fulvis; thorace elytris æquilato, tenuiter punctato; elytris parallelis, infra basin leviter excavatis; striis ante medium distincte punctatis, pone medium indistinctis, apicem versus deletis, 9no ad 12mum fere omnino obliteratis; interspatiis planis; femoribus dente parvo armatis.

Long. $1\frac{2}{3}$ lin.

Hab. Java.

Head granulose, lower portion of front impressed with a longitudinal groove; epistome separated from the front, longer than broad, subcampanulate, anterior border broadly concave-emarginate; jaws black; labrum fulvous. Thorax twice as broad as long; sides rounded, obliquely converging from behind the middle to the apex; anterior angles obsolete, hinder angles armed with a subacute tooth; above transversely convex, sides

obliquely deflexed in front; surface finely but distinctly punctured. Scutellum slightly broader at the base than long, its apex obsoletely angled. Elytra oblong, convex, impressed below the basilar space; striæ impressed on the anterior disk with round shallow punctures, on the hinder disk they are indistinct, and before reaching the apex of the elytron entirely obsolete; the ninth to the twelfth striæ are ill defined and entirely obsolete below the middle of the disk; interspaces plane.

Smaller and narrower than the preceding insect, and the elytra are differently punctured.

51. *Rhyparida tumifrons*, n. sp.

Oblonga, convexa, picea, nitida; vertice tumido, convexo; thorace subcrebre punctato, obsolete strigoso-reticulato; elytris thorace vix latioribus, infra basin non excavatis; striis integris, ante medium leviter sulcatis, sat fortiter punctatis, punctis pone medium minus fortiter impressis; interspatiis antice leviter convexiusculis, postice planis; femoribus subtus dente brevi armatis.

Long. 2 lin.

Hab. Borneo.

Vertex swollen, convex; whole surface of head granulose, covered with shallow oblong punctures, middle of front just above the eyes impressed with a shallow longitudinal fovea; epistome on the same plane and forming a single piece with the front, the apical sutures being entirely wanting; its anterior border moderately concave-emarginate, angles of the notch not produced; jaws black. Thorax twice as broad as long, sides rounded and converging from base to apex, anterior angles obsolete, hinder angles tuberculate; surface covered with coarse punctures, interspaces indistinctly reticulate-strigose. Scutellum scarcely longer than broad, its apex distinctly angular. Elytra scarcely broader than the thorax, not excavated below the basilar space; striæ strongly punctured, slightly sulcate on the anterior disk, the interspaces obsoletely convex; behind the middle the punctures are finer, and the interspaces plane.

The swollen head, and obliquely deflexed sides of the thorax in front, will serve to separate this species from its allies; viz., those in which the thorax is broad and has its anterior angles obsolete.

52. Rhyparida sulcicollis, n. sp.

Subelongata, convexa, obscure picea, nitida; capite pedibusque piceo-fulvis; antennis extrorsum infuscatis; thorace opaco, subremote tenuiter punctato, ante apicem transversim sulcato; elytris basi et apice piceo-fulvis, thorace vix latioribus, postice vix attenuatis, infra basin et intra callum humerale excavatis, spatio basilari paullo incrassato; striis apicem versus et supra spatium basilare minus fortiter punctatis, minus distinctis, interspatiis planis; femoribus subtus dente brevi armatis.

Long. $1\frac{2}{3}$ lin.

Hab. Sulu Islands, New Guinea.

Head opake, lower portion of front impressed with a deep longitudinal groove; epistome separated from the front, sides converging backwards, anterior border broadly concave-emarginate, angles of the notch slightly produced; jaws black. Thorax stained at base and apex with obscure fulvous, twice as broad at the base as long, sides rounded, obliquely converging from behind the middle to the apex; anterior angles obsolete, hinder angles armed with an obtuse tooth; above transversely convex at the base, sides obliquely deflexed in front; surface opake, impressed with a distant very finely impressed puncturing; just behind the anterior border is a deep but ill-defined transverse groove, which extends entirely across the surface of the thorax, but is less distinct on the middle of the disk. Scutellum subtrigonate, its apex rounded. Elytra sculptured as in *R. brunnea* (*ante*, p. 196).

53. Rhyparida bipustulata, n. sp.

Oblonga, convexa, læte purpurea, nitida; antennis flavis, extrorsum fuscis; thorace sub lente minute et remote punctato; elytris thorace latioribus, convexis, infra basin non excavatis; striis integris, subfortiter punctatis, interspatiis planis; utrisque plagâ transversâ, ante medium positâ, ornatis; femoribus subtus dente minuto armatis; tarsis obscurè piceis.

Long. 2 lin.

Hab. Waigiou.

Head irregularly wrinkled, minutely granulose, very finely and distantly punctured; lower portion of front impressed with a broad but shallow longitudinal groove; epistome forming a single

piece with the front, its anterior border broadly concave-emarginate. Thorax twice as broad as long; sides rounded and converging from base to apex; anterior angles nearly obsolete, hinder angles armed with an obtuse tooth; surface very finely granulose, minutely and distantly punctured. Scutellum broadly semiovate, its apex subangulate. Elytra broader than the thorax, convex, not excavated below the basilar space; striæ entire, the puncturing continued of nearly equal depth to the apex; interspaces plane, very faintly convex anteriorly.

54. *Rhyparida picta*, n. sp.

Oblonga, convexa, piceo-fulva, nitida; antennis (basi exceptâ) nigris; abdomine, pedibus anticis, femoribusque quatuor posticis piceis; elytris thorace multo latioribus, infra basin excavatis, striis integris, basi et apicem versus minus fortiter impressis; nigro-piceis, basi et apice pallidioribus, utrisque plagâ humerali fulvâ ornatis; femoribus muticis.

Long. 1¼ lin.

Hab. New Guinea (Dorey).

Head smooth, impunctate; frontal groove obsolete; epistome much longer than broad, wedge-shaped, not entirely separated from the front, the extreme apical suture obsolete; anterior border concave-emarginate, angles of the notch produced, obtuse; apex of jaws black; antennæ slightly but distinctly thickened towards the apex, two basal joints pale fulvous. Thorax nearly twice as broad as long; sides regularly rounded, all the angles tuberculate; surface smooth, impunctate. Elytra nitidous, deeply excavated below the basilar space and within the humeral callus; piceous, paler at the extreme base and at the apex, each elytron with a subtrigonate fulvous patch, which commences on the humeral callus and extends downwards as far as the middle of the disk, its inner edge oblique, deeply concave-emarginate; basilar space slightly thickened, the punctures covering its surface as well as those towards the apex of the elytron very fine and indistinct.

55. *Rhyparida Wallacei*, n. sp.

Anguste oblonga, convexa, piceo-fulva, nitida; thorace tenuiter subremote punctato, utrinque plagâ obsoletâ piceâ instructo; elytris oblongis, thorace latioribus, infra basin vix impressis;

striis integris, sulcatis, interspatiis convexis; suturâ vittulisque nonnullis piceis; femoribus subtus dente parvo armatis.

Long. $2\frac{2}{3}$ lin.

Hab. Sarawak.

Head finely punctured; epistome broader than long, distinctly separated from the front, pentagonal, sides slightly converging backwards; anterior border trisinuate, angles of the medial notch acute, scarcely produced; surface more coarsely punctured than the front; lower end of the latter impressed with a deep longitudinal groove; eyes and apex of jaws black. Thorax nearly twice as broad as long; sides rounded, scarcely converging in front, middle of lateral border faintly sinuate; surface nitidous, finely but not closely punctured, stained on either side of the disk with a faint ill-defined piceous patch. Scutellum longer than broad, semiovate. Elytra broader than the thorax, oblong, parallel, slightly excavated below the basilar space; striæ entire, sulcate, somewhat strongly punctured, the interspaces convex; a sutural stripe, a marginal vitta abbreviated above and below, a central vitta which occupies the middle third of the fifth and sixth interspaces, and two short vittæ, one placed on the humeral callus, the other halfway between the latter and the suture, piceous.

56. *Rhyparida vittipennis*, Baly.

Desc. New Gen. and Spec. Phyt. p. 9.

Anguste oblonga, convexa, subtus nigro-picea, nitida, supra piceo-fulva; thoracis plagis duabus, elytrorumque suturâ, lineâ marginali vittâque disci ad basin abrupte dilatatâ, ante apicem desinente, nigro-piceis; elytris infra basin obsolete transversim impressis; striis sulcatis, interspatiis elevatis, subcostatis; femoribus subtus dente parvo armatis.

Long. $2\frac{2}{3}$ lin.

Hab. Flores.

Head granulose, upper portion rugose; sides straight, converging backwards; anterior border trigonate; front impressed with a longitudinal groove, which runs upwards from the apex of the epistome; antennæ pale fulvous, their apex fuscous. Thorax nearly twice as broad as long; sides regularly rounded, scarcely narrowed in front, all the angles armed with a short

obtuse tooth; upper surface moderately convex, subremotely punctured; the piceous patches, which are placed one on either side, and are attached to the basal and lateral borders, cover nearly the whole surface of the disk, leaving only a longitudinal space down the middle, together with the anterior margin, free. Scutellum nigro-piceous. Elytra sulcate-striate, the sulci distinctly punctured, interspaces smooth, very remotely impressed with fine punctures, visible only under a lens; humeral callus slightly prominent.

57. *Rhyparida limbata,* Baly.

Desc. New Gen. and Spec. Phyt. p. 9.

Oblonga, convexa, fusco-fulva, subnitida; scutello, thorace utrinque maculâ, genibusque piceis; elytris nigro-piceo-limbatis, limbo exteriore ante apicem angustato, striis sulcatis, interspatiis convexiusculis; femoribus muticis.

Var. A. Elytrorum limbo suturali dilatato; thorace fasciâ interruptâ piceâ.

Var. B. Corpore toto pallide fulvo.

Long. 3 lin.

Hab. Celebes.

Head distantly punctured; epistome more closely punctured than the front, campanuliform, sutural line separating its apex from the front obsolete; anterior border slightly subangulate-emarginate. Thorax transverse, twice as broad as long; sides nearly straight and very slightly diverging from the base to behind the middle, thence regularly rounded and converging to the apex; surface somewhat irregularly punctured. Scutellum longer than broad. Elytra broader than the thorax, parallel, very faintly excavated below the basilar space; striæ deeply sulcate, finely punctured, the punctures oblong, interspaces convex; humeral callus moderately prominent.

58. *Rhyparida Horsfieldii,* n. sp.

Oblonga, convexa, fulva, nitida; capite (antennis exceptis) thoraceque pallide rufo-piceis, hoc sat fortiter suberebre punctato; elytris thorace latioribus, ovatis, infra basin excavatis; striis integris, piceo-punctatis, punctis ante medium sat fortiter, pone medium minus fortiter impressis, apicem

versus fere deletis; interspatiis fere planis; femoribus anticis spinâ acutâ, posticis dente parvo armatis.

Long. 2 lin.

Hab. Java.

Head deeply and closely punctured on either side the upper part of the front, lower portion of the front impressed with a deep longitudinal groove, supra-ocular grooves deeply excavated; epistome not separated at its apex from the front, longer than broad, wedge-shaped, anterior border slightly concave-emarginate, surface coarsely rugose-punctate; apex of jaws black. Thorax twice as broad as long; sides rounded, subangulate behind the middle, thence obliquely converging to the apex, all the angles tuberculate; above transversely convex, sides obliquely deflexed in front; surface nitidous, finely granulose, impressed with coarse punctures, lateral margin slightly dilated, piceous. Scutellum scarcely longer than broad, trigonate, sides rounded. Elytra broader than the thorax, subovate, nitidous, slightly excavated below the basilar space; striæ entire, piceo-punctate, punctures large and deeply impressed on the anterior disk, more finely impressed below the middle, very fine and nearly invisible towards the apex; interspaces plane, very faintly convex on the anterior disk.

59. *Rhyparida sulcata*, Baly.

Desc. New Gen. and Spec. Phyt. p. 8.

Oblonga, convexa, nitida, pallide rufo- aut fulvo-picea; thorace fortiter crebre punctato, longitudinaliter elevato-strigoso, strigis inter se reticulatis; elytris obscure fulvis, infra basin obsolete transversim depressis, sulcato-striatis; striis fortiter punctatis, punctis piceis; interspatiis lævibus, convexis; pedibus antennarumque basi obscure fulvis; femoribus subtus dente minuto armatis.

Long. $1\frac{2}{3}$ lin.

Hab. Borneo.

Head coarsely punctured; epistome not separated from the front, its anterior border armed with two short obtuse teeth, their interspaces concave; antennæ slender, filiform; eyes prominent, bounded above by a deep groove, which runs obliquely downwards on the face to join the apex of the lateral border of the epistome. Thorax rather broader than long; sides diverging for a short distance from their base, then obliquely converging and

slightly rounded to the apex; upper surface transversely convex, sides obliquely deflexed in front, closely covered with irregular longitudinal raised strigæ, which anastomose freely with one another, each interstice occupied by a single row of distinct somewhat deeply impressed punctures. Scutellum oblong, its apex obtuse. The elytra appear to vary considerably in colour; usually on the basilar space is an ill-defined fulvous patch; in other specimens the whole surface is fulvous, with the suture and some small patches on the disk piceous; striæ entire, sulcate, interspaces convex.

60. *Rhyparida Amboinensis*, n. sp.

Oblonga, convexa, obscure picea, nitida; antennis fulvis; thorace elytris fere æquilato, fere impunctato; elytris parallelis, infra basin non excavatis; striis integris, sat fortiter punctatis, punctis pone medium minus fortiter impressis; interspatiis planis; femoribus muticis.

Long. $1\frac{2}{3}$ lin.

Hab. Amboina.

Head granulose, nearly impunctate; frontal groove obsolete; epistome forming a single piece with the front, its surface concave, deeply punctured, anterior margin deeply rotundate-emarginate, angles of the emargination produced, subacute; labrum and antennæ fulvous; jaws black. Thorax nearly twice as broad as long; sides nearly straight and parallel behind the middle, obliquely rounded and converging from the middle to the apex, all the angles armed with a small tooth; transversely convex above, sides obliquely deflexed in front; surface shining, very sparingly and very remotely punctured. Elytra oblong-ovate, slightly excavated below the basilar space and within the humeral callus; striæ strongly punctured, entire, the punctures rather less strongly impressed behind the middle.

The form of the epistome will separate this species from its allies.

61. *Rhyparida nucea*, n. sp.

Elongata, picea, subnitida; thorace subcylindrico, fortiter punctato; elytris opacis, thorace multo latioribus, oblongis, infra basin excavatis; striis sulcatis, fortiter punctatis, pone apicem

minus fortiter impressis; interspatiis convexis, prope apicem fere planis; femoribus subtus dente acuto armatis.

Long. $1\frac{3}{4}$ lin.

Hab. Sulu Islands, New Guinea.

Head granulose, coarsely and deeply but not closely punctured; vertex rufo-fulvous, swollen, convex, impressed in the middle with a large fovea, from the lower end of which runs a short longitudinal groove; epistome obscure piceous, not separated from the front, the apical sutures obsolete, sides straight, converging backwards, anterior border broadly concave-emarginate, edges of the notch slightly produced, subacute; eyes prominent, their inner edges very slightly emarginate; jaws black; antennæ fuscous, two lower joints flavous. Thorax nearly half as broad again as long; sides diverging for a short distance at the base, thence obliquely converging and slightly rounded to the apex; anterior angles subtuberculate, hinder angles armed with an obtuse tooth; above subcylindrical, sides obliquely deflexed from behind the middle to the apex; surface deeply and closely punctured on the sides, punctures on the disk finer and less crowded. Scutellum longer than broad, its apex rounded. Elytra much broader than the thorax, opake, closely granulose, broadly excavated below the basilar space, the latter slightly thickened; striæ sulcate, strongly punctured, sulci less deeply impressed and more finely punctured behind the middle; interspaces convex, flattened towards the apex; suture narrowly edged with nigro-piceous.

The form of the thorax in this insect closely approaches that of *R. sumptuosa*, the first species in the genus (*ante*, p. 163).

62. *Rhyparida elevata*, n. sp.

Subquadrato-ovata, valde convexa, rufo-picea, purpureo-tincta, nitida; antennis fuscis, basi pallide fulvis; epistomate elevato; thorace impunctato; elytris purpureis, thorace latioribus, parallelis, infra basin vix excavatis; striis integris, sat fortiter punctatis, leviter sulcatis; interspatiis leviter convexiusculis; femoribus incrassatis, dente valido armatis.

Long. $1\frac{2}{3}$ lin.

Hab. Waigiou.

Head smooth, impunctate, the middle of the front above the eyes with a short longitudinal ridge; epistome raised above the level of the front, not separated at its apex from the latter,

broader in front than long, subcampanulate, its anterior border concave-emarginate; five lower joints of the antennæ pale fulvous, the third to the fifth stained with fuscous, the remaining joints entirely fuscous; apical half of jaws black. Thorax more than twice as broad as long; sides rounded, converging in front, anterior angles nearly obsolete, hinder angles armed with an obtuse tooth; surface smooth, impunctate. Scutellum scarcely broader than long, subtrigonate, the apex broadly rounded. Elytra broader than the thorax, convex, very slightly excavated below the basilar space, longitudinally sulcate within the humeral callus, the latter thickened; striæ strongly punctured, entire, the punctures of equal depth to the apex; interspaces slightly convex.

63. *Rhyparida trilineata*, Baly.

Desc. New Gen. and Spec. Phyt. p. 9.

Elongata (♂), subelongata (♀), convexa, pallide picea, nitida; thorace supra et infra pectoreque piceis; elytris infra basin vix excavatis, thorace latioribus, fere parallelis (♂), postice attenuatis (♀); striis ante medium fortiter punctatis, ponc medium minus distinctis, apicem versus fere deletis; interspatiis ante medium leviter convexiusculis; vittâ suturali, basi angustatâ, alterâque marginali, postice abbreviatis, piceis; femoribus muticis.

Long. 3—4 lin.

Hab. New Guinea.

Head prominent; front distinctly but not very closely punctured, its lower end impressed with the usual longitudinal groove; epistome longer than broad, distinctly separated from the front, pentagonal, apical angle acute; sides straight, slightly converging backwards, anterior border deeply concave-emarginate, angles of the notch produced, obtuse; surface more coarsely and deeply punctured than the front; jaws nigro-piceous; antennæ slender, entirely filiform. Thorax twice as broad as long; sides rounded and converging from base to apex, nearly parallel at the extreme base, all the angles armed with an obtuse tooth; above transversely convex, sides in front in the ♀ strongly and obliquely deflexed; surface subopake, granulose, coarsely but not very closely punctured. Scutellum longer than broad, semilanceolate-ovate. Elytra broader than the thorax, subparallel in the ♂, obcuneiform in the ♀, faintly excavated below the basilar space, longitudinally impressed within the humeral

callus, the latter subprominent; striæ strongly punctured in front, more finely punctured posteriorly, nearly obsolete near the apex; interspaces nearly plane, minutely but not closely punctured.

64. *Rhyparida dimidiatipennis*, Baly.

Desc. New Gen. and Spec. Phyt. p. 8.

Elongata, convexa, fusco-fulva, subopaca, elytrorum dimidio postico lineâque marginali anticâ nigris, genibus infuscatis; elytrorum striis subsulcatis; femoribus muticis.

Long. $2\frac{1}{2}$—3 lin.

Hab. New Guinea.

Head exserted; forehead convex, very finely punctured, lower portion of front impressed with a deep longitudinal groove; epistome separated from the front, longer than broad, apical angle acute; sides nearly straight and parallel, slightly converging at the apex; anterior border deeply concave-emarginate, angles of the notch produced each into a subacute tooth; surface depressed towards the apex, more coarsely punctured than the front; jaws nigro-piceous; eyes prominent. Thorax nearly twice as broad as long; sides nearly straight and parallel at the base, thence obliquely converging and rounded to the apex, all the angles armed with a small tooth; above transversely convex; sides obliquely deflexed in front; surface nearly impunctate. Scutellum pentagonal. Elytra broader than the thorax, parallel, not excavated below the basilar space; striæ entire, obsoletely sulcate, the interspaces very slightly convex.

65. *Rhyparida laterivittata*, n. sp.

Oblonga, convexa, piceo-fulva, nitida; vertice pectoreque nigro-piceis; antennis pedibusque pallide fulvis; thorace granuloso, hic illic sparse punctato, disco piceo; elytris thorace latioribus, infra basin et intra callum humerale leviter excavatis; striis distincte punctatis, punctis pone medium tenuiter impressis; utrisque vittâ latâ laterali nigro-piceâ, ante apicem abbreviatâ, infra basin intus fere ad suturam productâ, basi fulvo-notatâ; femoribus muticis.

Long. $1\frac{2}{3}$ lin.

Hab. Mysol.

Head prominent, finely granulose, distantly punctured; epistome forming a single piece with the front, its surface concave,

its anterior border deeply concave-emarginate, angles of the notch produced, obtuse, centre of front impressed with a faint longitudinal groove; jaws black. Thorax twice as broad as long; sides rounded and converging from base to apex; anterior angles obsoletely, hinder distinctly tuberculate; above transversely convex, sides obliquely deflexed in front; surface finely granulose, impressed here and there with a few deep punctures; disk, together with the extreme outer edge of the lateral border, nigro-piceous. Elytra broader than the thorax, oblong-subovate, excavated below the basilar space and within the humeral callus, the latter thickened; striæ entire, more finely punctured towards the apex; interspaces plane, obsoletely convex on the inner disk in front; on the outer border of each elytron is a broad nigro-piceous vitta, which extends from the base nearly to the apex; at its basal end it is more or less marked with fulvous; a short distance below the base it sends a broad ramus inwards nearly to the suture, and just before its apex it is again produced inwards, although not so far as before.

66. *Rhyparida parvula*, n. sp.

Oblonga, convexa, fulva, nitida; thorace impunctato; elytris thorace latioribus, infra basin excavatis; striis infra basin distincte punctatis, basi ipsâ et apicem versus omnino deletis; femoribus subtus dente parvo armatis.

Long. 1—1$\frac{1}{3}$ lin.

Hab. New Guinea.

Head smooth, impunctate; epistome wedge-shaped, forming a single piece with the front, anterior border concave-emarginate, angles of the notch slightly produced, very obtuse; longitudinal groove on front obsolete; jaws piceous. Thorax twice as broad as long; sides rounded, scarcely converging in front; hinder angles armed with a subacute tooth, anterior tuberculate; surface shining, impunctate, lateral border narrowly edged with piceous. Scutellum longer than broad, subtrigonate, its apex obtuse. Elytra much broader than the thorax, parallel, excavated below the basilar space and within the humeral callus, the latter thickened; basilar space also thickened, impunctate; striæ distinctly punctured below the basilar space and on the middle disk, below the latter the puncturing becomes very fine and is entirely lost towards the apex; a single stria next the suture is entire and sulcate.

This species at first sight has greatly the aspect of *Nodostoma læve* (*post*, p. 220).

67. *Rhyparida pinguis*, n. sp.

Breviter ovata, convexa, piceo-fulva, nitida; thorace fere impunctato; elytris thorace latioribus, late ovatis, infra basin leviter depressis; striis integris, sulcatis, tenuiter punctatis; femoribus (præsertim anticis) incrassatis, anticis spinâ validâ, posticis spinâ parvâ armatis, intermediis muticis.

Long. $2\frac{1}{3}$ lin.

Hab. Borneo.

Head smooth, impunctate, lower portion of the front impressed with a shallow longitudinal groove; epistome separated from the front, narrowly wedge-shaped, anterior border moderately concave-emarginate, angles of the notch not produced, very obtuse; jaws nigro-piceous. Thorax more than twice as broad as long; sides rounded, converging from the middle to the apex, all the angles armed with an obtuse tooth; surface transversely convex, nearly impunctate. Scutellum subpentagonal, impressed towards the apex with a large shallow fovea. Elytra much broader than the thorax, broadly oval, very faintly impressed below the basilar space, sulcate within the humeral callus, the latter slightly thickened; striæ entire, sulcate, finely punctured; interspaces convex.

This insect may be known from all other species of the genus by its broadly ovate form.

68. *Rhyparida ovalis*, n. sp.

Ovalis, convexa, piceo-fulva, nitida; thorace elytris angustiori, minute et remote punctato; elytris late ovalibus, infra basin leviter excavatis, callo humerali incrassato; striis integris, sulcatis, tenuiter punctatis, interspatiis convexis; femoribus anticis subtus dente acuto armatis.

Long. $2\frac{1}{4}$ lin.

Hab. Sumatra.

Epistome separated from the front, wedge-shaped, its anterior border broadly concave-emarginate; lower portion of the front impressed with the usual longitudinal groove; jaws black. Thorax twice as broad as long; sides rounded and converging from base to apex, nearly parallel at the extreme base, all the angles armed with a small obtuse tooth; surface minutely and sparingly punctured. Elytra similar in form and sculpture to those of *R. pinguis*.

Smaller than *R. pinguis*; thorax narrower.

69. *Rhyparida Celebensis*, n. sp.

Subelongata, convexa, picea, nitida; thorace subcrebre punctato, utrinque nigro-piceo-maculato; elytris thorace multo latioribus, oblongis, infra basin excavatis; striis ante medium distincte, pone medium tenuissime punctatis, interspatiis planis, suturâ calloque humerali nigro-piceis; femoribus subtus dente acuto armatis; femoribus tibiisque basi obscure fulvis.

Long. $1\frac{2}{3}$ lin.

Hab. Celebes.

Head moderately prominent, upper part of vertex nigro-piceous, surface impressed with shallow oblong punctures; lower portion of front impressed with a faint longitudinal groove; epistome not separated at its apex from the front, semiovate, anterior border very faintly subangulate-emarginate; jaws nigro-piceous; basal joints of antennæ fulvous. Thorax half as broad again as long; sides rounded, converging from behind the middle to the apex, all the angles tuberculate; upper surface transversely convex at the base, sides obliquely deflexed in front; minutely granulose, strongly and closely punctured on the sides, the interspaces elevate-reticulate; disk more finely and less closely punctured. Scutellum oblong, its apex rounded. Elytra much broader than the thorax, parallel, broadly excavated below the basilar space, distinctly sulcate within the humeral callus, the latter thickened; striæ entire, distinctly punctured on the anterior disk, very finely punctured and only visible with a lens behind the middle; interspaces plane.

70. *Rhyparida lateralis*, n. sp.

Elongata, convexa, picea, nitida; antennis extrorsum fuscis; thorace longitudine vix latiori, subcylindrico, lateribus antice declivibus; elytris thorace multo latioribus, infra basin et intra callum humerale excavatis; striis sat fortiter punctatis, apicem versus tenuissime punctatis, fere deletis; interspatiis planis; utrisque costâ sublaterali latâ interruptâ, a callo humerali fere ad medium elytri extensâ, instructis; femoribus posterioribus subtus dente brevi armatis.

Long. $1\frac{2}{3}$ lin.

Hab. Manilla.

Head prominent, finely granulose, distinctly but distantly punctured, more closely punctured on the epistome, the latter in

the same plane and forming a single piece with the front, apical sutures entirely obsolete, the lateral very indistinct; middle portion of anterior margin concave-emarginate, angles of the notch slightly produced, obtuse; jaws nigro-piceous; basal joints of antennæ fulvous. Thorax half as broad again as long; sides rounded, slightly converging in front, all the angles tuberculate; above very convex, sides deflexed in front; surface strongly but not closely punctured, the puncturing finer near the middle of the anterior border. Scutellum longer than broad, semiovate. Elytra much broader than the thorax, parallel, broadly excavated below the basilar space, longitudinally sulcate within the humeral callus, the latter thickened, prominent; basilar space slightly thickened; striæ strongly punctured on the anterior disk, finely punctured on the basilar space and on the hinder disk, nearly obsolete towards the apex; on the anterior outer disk is a strongly-raised tuberculate and more or less interrupted ridge, extending from the humeral callus to the middle of the elytron, its hinder portion being slightly flexuous, and becoming gradually lost in the general surface of the disk.

71. *Rhyparida angulicollis*, n. sp.

Anguste oblonga, parallela, convexa, pallide fulva, nitida; thorace elytris fere æquilato, lateribus angulatis, dorso rude subremote punctato; elytris oblongis, infra basin obsolete excavatis; striis integris, sulcatis; interspatiis convexiusculis, iis prope marginem lateralem subcostatis; femoribus muticis.

Long. $1\frac{1}{2}$ lin.

Hab. Eastern portion of Ceram.

Head moderately prominent, coarsely punctured; epistome forming a single piece with the front, its anterior border subangulate-emarginate; jaws piceous; eyes prominent, entire; antennæ two-thirds the length of the body. Thorax twice as broad as long; sides angled just behind the middle, narrowly edged with piceous; upper surface coarsely punctured. Elytra scarcely broader than the thorax, parallel, very faintly impressed below the basilar space; striæ sulcate, strongly punctured; interspaces slightly convex, those near the lateral border thickened.

The species before us is the only instance known to me of a distinctly angular thorax in the genus *Rhyparida*.

Genus Nodostoma, Motsch.

Col. Sibérie Orient. p. 176.

Corpus ovatum, oblongum aut elongatum, convexum. *Caput* perpendiculare; *antennis* filiformibus, rarius subincrassatis. *Thorax* plerumque transversus, convexus, rarius subcylindricus; lateribus marginatis, angulatis aut rotundatis. *Elytra* punctato-striata, plerumque thorace latiora. *Pedes* mediocres aut subelongati, rarius longissimi; *femoribus* incrassatis, basi sæpe attenuatis, muticis aut subtus dente acuto armatis; *tibiis* posticis quatuor extus ante apicem emarginatis; *unguiculis* appendiculatis. *Episterna* antica trigonata; sulcis inter prosternum et episterna obsoletis.

The only constant differential character between the present and the preceding genus is the appendiculated claw; although (with few exceptions) there is a general difference in form, difficult to describe in words, which renders it easy at first sight to separate the species belonging to the two genera.

The species at present known of *Nodostoma* are entirely Asiatic.

I. *Elytra punctate-striate.*

A. *Antennæ subincrassate or subfiliform, joints compressed; body fulvous.*

1. *Nodostoma nigricorne*, Baly.

(*N. nigricornis*), Desc. New Gen. and Spec. Phyt. p. 13.

Subelongatum, convexum, fulvum, nitidum; antennis subfiliformibus, nigris (basi exceptâ), articulo ultimo apice albo; tibiis tarsisque piceis; thorace transverso, subremote punctato; elytris oblongis, infra basin leviter transversim excavatis, punctato-striatis, punctis pone medium minus fortiter impressis, interspatiis subremote tenuiter punctatis; femoribus muticis.

Long. $2\frac{1}{4}$ lin.

Hab. Tondano.

Head short, impressed here and there with large deep punctures; front impressed with a longitudinal groove; epistome not separated from the front, broader than long, its anterior border concave-emarginate, angles of the notch slightly produced, obtuse;

jaws piceous, their apex black; antennæ nearly two-thirds the length of the body, seven outer joints compressed and dilated, four basal joints cylindrical, pale fulvous; eyes prominent, nearly entire. Thorax twice as broad as long; sides rounded, converging from behind the middle to the apex; anterior angles tuberculate, hinder armed with a subacute tooth; surface subremotely punctured. Elytra oblong, broader than the thorax, slightly impressed below the basilar space, distinctly sulcate within the humeral callus, the latter thickened; surface distinctly punctate-striate; striæ less strongly punctured towards the apex; interspaces finely and remotely punctured.

2. *Nodostoma trivittatum*, n. sp.

Breviter ovatum, valde convexum, fulvum, nitidum; antennis robustis, basi fulvis, apice albidis; thorace remote subtenuiter punctato; elytris thorace latioribus, convexis, infra basin non excavatis, distincte sed tenuiter punctato-striatis, interspatiis minute subremote punctatis, lineâ suturali limboque laterali nigris; femoribus muticis; tarsis piceis.

Long. 2 lin.

Hab. Borneo.

Head short; centre of front impressed with a short longitudinal groove; vertex nearly impunctate, lower portion of face remotely punctured; epistome broader than long, its apex continuous with the front, sides straight, converging backwards, anterior border concave-emarginate; antennæ robust, half the length of the body, seven outer joints thickened and slightly compressed, three lower joints fulvous, tenth piceous, eleventh white. Thorax twice as broad as long; sides rounded and converging from base to apex, all the angles tuberculate; surface distinctly but remotely punctured. Scutellum elongate-trigonate, its apex obtuse. Elytra broader than the thorax, parallel, convex, finely but distinctly punctured; interspaces very finely punctured. Legs robust.

3. *Nodostoma apicale*, n. sp.

Ovatum, valde convexum, obscure fulvum, nitidum; pedibus rufo-piceis; antennis robustis, nigris, basi fulvis, apice albidis; thorace subtenuiter remote punctato; elytris thorace latioribus, convexis, infra basin non excavatis, sat fortiter

punctato-striatis, interspatiis tenuiter subremote punctatis; femoribus muticis.

Long. $2\frac{1}{2}$ lin.

Hab. Borneo (Sarawak).

Head short, distantly punctured; centre of front impressed with a short longitudinal groove; epistome broader than long, continuous at its apex with the front, sides straight and nearly parallel, anterior border concave-emarginate, angles of the notch scarcely produced, obtuse, anterior portion of surface obliquely deflexed; antennæ similar in form to those of *N. trivittatum*, three lower joints obscure fulvous, tenth black; jaws nigropiceous. Thorax twice as broad as long; sides rounded, converging in front; anterior angles subtuberculate, hinder angles armed with an obtuse tooth; upper surface finely and distinctly but remotely punctured. Scutellum narrow, elongate-trigonate, its apex slightly produced, subacute. Elytra similar in form to those of *N. trivittatum;* the striæ more strongly punctured.

4. *Nodostoma proximum*, n. sp.

Oblongum, convexum, fulvum, nitidum; antennis robustis, subfiliformibus, nigris, basi fulvis, articulo ultimo albo; thorace sub lente tenuissime remote punctato; elytris convexis, thorace latioribus, tenuiter punctato-striatis; femoribus muticis.

Long. $1\frac{2}{3}$ lin.

Hab. Borneo (Sarawak).

Head moderately exserted; epistome wedge-shaped, forming a single piece with the front, its anterior border broadly concave-emarginate, angles of the emargination slightly produced, obtuse; extreme upper portion of vertex closely covered with large oblong punctures; antennæ half the length of the body, seven upper joints thickened and slightly compressed, increasing in width near the apex. Thorax twice as broad as long; sides rounded and converging from base to apex, all the angles tuberculate; upper surface very minutely and sparingly punctured. Scutellum narrowly semiovate, its apex subacute. Elytra broadly oblong, convex, not excavated below the basilar space, finely punctate-striate.

Smaller, narrower and more parallel than either of the two preceding species; elytra more finely punctured.

B. *Antennæ slender, filiform, joints cylindrical; body smooth, elongate or narrowly oblong, non-metallic.*

a. *Legs very long; thighs very slender at the base* (*Basilepta*, mihi, olim).

5. *Nodostoma longipes*, Baly.

Basilepta longipes, Baly, Journ. of Entom. i. p. 23, pl. i. fig. 1.

Subelongatum, valde convexum, nitidum, supra obscure viridi-æneum; pedibus elytrorumque tuberculo obscure piceis, corpore subtus antennisque (harum basi fulvâ exceptâ) nigro-piceis; thorace antice gibboso, lateribus angulatis; femoribus longissimis, basi valde attenuatis, posterioribus subtus dente acuto armatis.

Long. 2 lin.

Hab. Borneo.

Subelongate, very convex, nitidous, above obscure metallic-green; body beneath and the antennæ (the fulvous base of the latter excepted) obscure pitchy-black; a large shining circular protuberance on the basilar space of each elytron, together with the legs, piceous; attenuated base of four posterior thighs obscure fulvous. Head smooth above, forehead with a longitudinal groove; lower portion of face deeply punctured; antennæ slender, filiform, longer than the body, three basal joints obscure fulvous. Thorax rather longer than broad; sides produced and angled just behind their middle, their hinder portion sinuate; above transverse, convex, gradually thickened and gibbose towards the apex; surface deeply rugose-punctate, interstices irregularly thickened; gibbose portion nearly impunctate. Scutellum subtrigonate. Elytra much broader at the base than the thorax, nearly three times the length, slightly narrowed behind, convex; each elytron with eleven rows of distinct punctate striæ, the first abbreviated; on the posterior half nearly all the striæ become obsolete, whilst on the epipleura are two short additional rows, making the total number across that portion of the surface thirteen; humeral callus elevated into a short oblique compressed ridge; on the basilar space is a distinctly raised circular piceous protuberance, its circumference bounded by an indistinct circular groove, the surface smooth and shining, impunctate. Body beneath obscure nigro-piceous; legs piceous, elongate, basal half of thighs slender, filiform, apical half flask-shaped, two posterior

pairs armed towards their apex beneath with a fine acute tooth, basal half of the same thighs obscure fulvous; all the legs sparingly covered with long silky hairs.

6. *Nodostoma Wallacei*, n. sp.

Elongatum, convexum, æneo-piceum, nitidum; thorace rude rugoso-punctato, lateribus pone medium angulatis, dente acuto armatis; elytris thorace latioribus, oblongis, infra basin et intra callum humerale excavatis, hoc in cretam obliquam elevato; fortiter punctato-striatis, interspatiis costatis, disco exteriori ante medium rude elevato-reticulatis; pedibus longissimis, piceis, femoribus quatuor posticis basi obscure fulvis, subtus dente parvo instructis.

Var. A. Corpore pallide piceo.

Long. $2\frac{1}{2}-3$ lin.

Hab. Borneo.

Head subelongate, coarsely, deeply and irregularly punctured; epistome wedge-shaped, not separated at its apex from the front; lower portion of the front impressed with a deep longitudinal groove; antennæ slender, fuscous, three or four basal joints fulvous, more or less stained above with fuscous; eyes prominent. Thorax scarcely longer than broad; sides angled just behind the middle, the angle itself produced into a short acute tooth; anterior angles acute, hinder armed with an obtuse tooth; upper surface coarsely and deeply punctured; interspaces irregularly thickened; just behind the anterior border is a deep groove, which extends entirely across the thorax. Scutellum longer than broad, trigonate, its apex obtuse. Elytra much broader than the thorax, oblong.

b. *Legs elongate or subelongate.*

7. *Nodostoma elegantulum*, n. sp.

Elongatum, convexum, viridi-metallicum; antennis pedibusque nigro-piceis, his æneo-micantibus; femoribus basi labroque fulvis; thorace subremote fortiter punctato; elytris thorace paullo latioribus, oblongis, infra basin et intra callum humerale excavatis, fortiter punctato-striatis, striis pone medium fere deletis; pedibus sat elongatis; femoribus basi attenuatis, anticis subtus angulatis, quatuor posticis subtus dente acuto armatis.

Long. $2\frac{1}{3}$ lin.

Hab. Celebes.

Head coarsely but not closely punctured; epistome forming a single piece with the front, its anterior border broadly concave-emarginate. Thorax about half as broad again as long; sides rounded, slightly converging in front, all the angles armed with a subacute tooth; above transversely convex, coarsely and irregularly but somewhat remotely punctured. Scutellum rather longer than broad, semiovate. Elytra broader than the thorax, oblong.

8. *Nodostoma Cumingii*, Baly.

Desc. New Gen. and Spec. Phyt. p. 14.

Elongatum, valde convexum, viridi-æneum, nitido-piceum; antennis nigris, basi fulvis; thorace subremote punctato, lateribus rotundatis, medio obsolete angulatis; elytris infra basin late transversim excavatis et plagâ violacco-metallicâ notatis, humeris prominulis, fortiter punctato-striatis, striis supra spatium basilare minus fortiter impressis, pone medium fere deletis; pedibus modice elongatis, piceo-æneis; femoribus (apice excepto) rufis, subtus dente acuto armatis.

Long. 2 lin.

Hab. Manilla.

Head distinctly punctured; epistome forming a single piece with the front, its anterior border broadly concave-emarginate, sides straight and parallel; eyes prominent. Thorax rather more than half as broad again as long; sides rounded, nearly straight and parallel at the base, converging in front, very indistinctly angled in the middle; upper surface deeply and coarsely but not closely punctured, bounded within the anterior border by a shallow transverse groove, which extends entirely across the thorax. Elytra broader than the thorax, oblong, deeply excavated below the basilar space, distinctly sulcate within the humeral callus, the latter thickened; surface deeply and strongly punctate-striate; striæ less strongly punctured on the basilar space, which is slightly thickened, very finely punctured and indistinct on the hinder disk; on the transverse excavation, below the basilar space, is a small violaceous patch.

9. *Nodostoma pallidum*, Baly.

(*N. pallida*), Desc. New Gen. and Spec. Phyt. p. 13.

Elongatum, convexum, pallide fulvum, nitidum; thorace profunde excavato-punctato, ante apicem constricto, lateribus

subangulatis, piceo-marginatis; elytris thorace latioribus, oblongis, postice vix attenuatis, infra basin et intra callum humerale excavatis, hoc elevato; sat fortiter punctato-striatis, striis prope suturam sulcatis, iis disci exterioris ad apicem fere deletis, vittâ humerali margineque laterali basi piceis; pedibus elongatis; femoribus basi attenuatis, subtus dente brevi armatis, posticis intus ante apicem piceo-maculatis.

Long. 2 lin.

Hab. Borneo.

Head triangular, sparingly impressed with large deep punctures; epistome not separated at its apex from the front, wedge-shaped; front impressed with a longitudinal groove; jaws piceous; eyes large, prominent; antennæ longer than the body, their outer half fuscous. Thorax not longer than broad; sides distinctly angled immediately behind the middle, all the angles slightly produced, acute; upper surface more or less closely covered with large deep foveolate punctures; just behind the anterior border is a deeply sulcate groove, the surface of which is impressed with a single row of punctures. Elytra broader than the thorax, oblong, parallel, impressed below the basilar space and within the humeral callus, the latter elevated, oblique; strongly punctate-striate, the punctures on the middle disk less strongly impressed towards the apex; striæ near the suture sulcate; basilar space thickened, more finely punctured than the surrounding surface.

10. *Nodostoma laterale*, n. sp.

Elongatum, convexum, fulvum, nitidum; thorace latitudine vix longiori, dorso convexo, vix pone apicem transversim constricto, lateribus medio angulatis, piceo-marginatis, profunde foveolato-punctatis, disco impunctato; elytris thorace latioribus, oblongis, parallelis, infra basin et intra callum humerale excavatis, hoc elevato, obliquo; sat fortiter punctato-striatis, striis pone medium tenuiter punctatis; utrisque suturâ basi, margine laterali ante medium, callo humerali, punctoque pone medium disci posito, piceis; pedibus elongatis; femoribus basi attenuatis, subtus dente brevi armatis.

Var. A. Elytrorum signaturis plus minusve obsoletis.

Long. 2 lin.

Hab. Borneo.

Very nearly allied to *N. pallidum*, distinguished from that species by the smoother, less strongly punctured face, the longer

thorax, the impunctate disk of the latter, together with the less strongly punctured hinder disk of the elytra; in form and in all other characters it agrees with the former species.

11. *Nodostoma humerale*, n. sp.

Elongatum, convexum, pallide fulvum, nitidum; thorace transverso, lateribus pone medium angulatis, dorso prope apicem transversim sulcato, disco hic illic profunde punctato; elytris thorace multo latioribus, infra basin et intra callum humerale excavatis, hoc elevato, obliquo; sat fortiter punctato-striatis, striis ante medium leviter sulcatis, pone medium minus fortiter impressis, interspatiis convexiusculis, punctis piceis; utrisque margine laterali, vittâ brevi basali suturali, plagâque humerali subtrigonatâ, intus emarginatâ, piceis; pedibus elongatis; femoribus basi attenuatis, anticis muticis, quatuor posticis subtus dente brevi armatis.

Long. 2 lin.

Hab. Borneo (Sarawak).

Head moderately exserted, smooth; epistome wedge-shaped, not separated at its apex from the front, impressed on either side towards the apex with a few deep piceous punctures, anterior border broadly concave-emarginate; front impressed in the middle with a shallow longitudinal groove; encarpæ separated from the front by a piceous groove, which runs upwards on the upper border of the eyes; jaws black; antennæ slender, outer half pale piceous. Thorax nearly twice as broad as long; sides distinctly angled behind the middle, thence obliquely converging towards the apex, more quickly converging just before reaching the anterior angle, the latter armed with an obtuse tooth, hinder angles also toothed; upper surface transversely convex; anterior and basal surface smooth, impunctate, middle portion impressed with a large broad band of deep punctures, which extends entirely across the thorax; just behind the anterior border is a sulcate groove, the surface of which is impressed with a single row of punctures; lateral margin nigro-piceous. Scutellum subelongate-trigonate, its apex obtuse. Elytra broader than the thorax, parallel, excavated below the basilar space and within the humeral callus, the latter thickened; striæ entire, rather strongly punctured and subsulcate in front, the punctures piceous; behind the middle the striæ are not sulcate, more finely punctured, and the interspaces plane; the humeral patch extends from the shoulder nearly

to the middle of the disk, its lower extremity is dilated and produced inwards half-way across the inner disk.

12. *Nodostoma læve*, n. sp.

Elongatum, convexum, pallide flavum, nitidum; thorace fere impunctato, lateribus rotundatis, vittâ brevi disci limboque angusto pallide piceis; elytris infra basin excavatis, humeris elevatis, tenuissime punctato-striatis, punctis limboque pallide piceis, utrisque maculâ infra basin limboque laterali basi saturate piceis; pedibus subelongatis, subtus dente brevi armatis.

Long. 2 lin.

Hab. Borneo.

Head exserted, coarsely punctured on the vertex, which is piceous; front smooth, nearly impunctate, impressed in the centre with a short longitudinal groove; epistome wedge-shaped, not separated at the apex from the front, anterior border broadly subangulate-emarginate; encarpæ separated from the front by a deep piceous groove, which runs upwards along the upper border of the eye; jaws piceous, their apex black; outer half of antennæ fulvous. Thorax one third as broad again as long, sides rounded, scarcely converging in front, slightly sinuate just before the middle, all the angles tuberculate; transversely convex above, very remotely impressed with a few minute punctures on the disk; just behind the anterior border is a transverse groove, extending entirely across the thorax, its surface impressed with a single row of punctures; a short vitta on the central disk, the transverse groove and the extreme base of the thorax, pale piceous. Scutellum elongate-trigonate, its apex obtuse. Elytra much broader than the thorax, parallel, excavated below the basilar space, and slightly within the humeral callus, the latter thickened, oblique; basilar space slightly elevated; surface very finely striate-punctate, the punctures piceous, visible only under a strong lens, with the exception of those placed on the subbasal excavation, which are more strongly impressed. Thighs stained near the apex with piceous.

13. *Nodostoma Bohemani*, Baly.

Desc. New Gen. and Spec. Phyt. p. 14.

Elongatum, convexum, pallide fulvum, nitidum; thorace impunctato, lateribus rotundatis; elytris thorace latioribus,

infra basin et intra callum humerale sat profunde excavatis, tenuiter punctato-striatis, striis pone medium fere deletis; lineâ suturali ante apicem abbreviatâ, limbis basali et laterali (hoc pone medium obsoleto), callo humerali punctoque submarginali pone medium posito, nigris; pedibus elongatis, femoribus subtus dente brevi armatis.

Var. A. Elytrorum signaturis plus minusve obsoletis.

Long. 2 lin.

Hab. Borneo.

Head moderately exserted, smooth, impunctate; epistome wedge-shaped, not separated at its apex from the front, anterior border subangulate-emarginate; middle of front impressed with a short longitudinal fovea; encarpæ separated from the front by a single row of punctures; eyes large, prominent, their inner edge sinuate; jaws nigro-piceous. Thorax half as broad again as long; sides moderately rounded, slightly sinuate in the middle, all the angles tuberculate; upper surface smooth, impunctate; the anterior margin bounded within by a deeply sulcate groove which extends entirely across the thorax. Scutellum trigonate, its apex rounded. Elytra broader than the thorax, oblong, slightly narrowed posteriorly, excavated below the basilar space and within the humeral callus, the latter prominent; striæ finely punctured, nearly obsolete towards the apex.

14. *Nodostoma placidum*, n. sp.

Oblongum, convexum, pallide flavum, nitidum; antennis (basi exceptâ) fuscis; thorace transverso, elytris fere æquilato, lateribus rotundatis, pone medium obsolete angulatis, hinc ad apicem obliquis, tenuiter remote punctato, pone apicem transversim sulcato, margine apicali piceo; elytris parallelis, infra basin et intra callum humerale excavatis, hoc elevato; utrisque infra basin plagâ pallide piceâ maculatis; striis sat fortiter punctatis, interspatiis convexiusculis, striis apicem versus fere deletis, interspatiis planis; pedibus subelongatis, femoribus subtus dente brevi armatis.

Long. 1½ lin.

Hab. Borneo.

Head slightly exserted; vertex convex, nearly impunctate, a few punctures being visible on either side above the eyes, on the lower portion of the front and on the epistome; the latter wedge-shaped, not separated at its apex from the front, its anterior border

slightly angulate-emarginate; jaws piceous; eyes prominent, ovate, their inner border slightly sinuate. Thorax twice as broad as long; sides obsoletely angular behind the middle, obliquely diverging at the base, thence obliquely converging and slightly rounded to the apex, apical angles armed with a subacute tooth; upper surface finely and distantly punctured, lateral border slightly dilated; the anterior border bounded within by a transverse groove which extends entirely across the thorax; anterior border piceous. Scutellum trigonate, its apex obtuse. Elytra scarcely broader than the thorax, parallel, excavated below the basilar space and within the humeral callus, the latter prominent; striæ somewhat strongly punctured, slightly sulcate, the interspaces convex; on the hinder third of the surface the striæ are nearly obsolete, and the interspaces plane; on the subbasilar excavation is a small pale piceous patch.

15. *Nodostoma piceomaculatum*, n. sp.

Elongatum, convexum, pallide fulvum, nitidum; thorace elytris fere æquilato, lateribus rotundatis, pone medium obsolete angulatis, dorso subremote fortiter punctato, margine apicali punctisque duobus disci piceis; elytris parallelis, infra basin et intra callum humerale fortiter excavatis; striis integris, antice sulcatis, sat fortiter punctatis, interspatiis convexiusculis, punctis postice minus fortiter impressis, interspatiis planis; utrisque lineâ suturali maculisque parvis tribus basalibus piceis ornatis; femoribus subtus dente acuto armatis, posticis ante apicem fusco-maculatis.

Long. 2 lin.

Hab. Borneo.

Head smooth, nearly impunctate; epistome wedge-shaped, its apex not separated from the front, anterior border subangulate-emarginate; encarpæ separated from the front by a shallow groove; jaws nigro-piceous; eyes black, their inner edge sinuate; outer half of antennæ stained with piceous. Thorax more than twice as broad as long; sides rounded, obtusely angled behind the middle, thence obliquely converging and slightly rounded to the apex; anterior and posterior angles each armed with an obtuse tooth; above transversely convex, remotely impressed with deep punctures; the anterior border bounded within by a deep transverse groove which extends entirely across the thorax, its surface impressed with a row of indistinct punctures; two small spots on either side of the disk, together with the anterior margin,

piceous; hinder border also narrowly stained with piceous. Scutellum longer than broad, trigonate, piceo-fulvous. Elytra scarcely broader than the thorax, parallel, deeply excavated below the basilar space and within the humeral callus, the latter thickened; striæ entire, strongly punctured and sulcate in front, the interspaces convex; behind the middle the punctures are less deeply impressed, and the interspaces plane; each elytron with a narrow piceous sutural line, and three small markings, piceous; viz., one on the basilar space, another submarginal, placed just below the shoulder, and a third, transverse, situated on the subbasilar excavation, and sending a branch upwards between the humeral callus and basilar space. Anterior pair of thighs strongly thickened.

c. *Legs of normal length.*

16. *Nodostoma cylindricum*, Baly.

(*N. cylindrica*), Desc. New Gen. and Spec. Phyt. p. 13.

Elongatum, angustatum, subcylindricum, flavo-fulvum, nitidum; elytrorum maculâ subapicali nigro-piceâ; thorace subremote punctato; elytris striato-punctatis, interspatiis planis; femoribus anticis dente brevi armatis.

Long. $2\frac{3}{4}$ lin.

Hab. Borneo (Sarawak).

Head rather broad, moderately exserted, nitidous, impressed here and there with large deep punctures, which are more crowded on the epistome than on the front; epistome forming a single piece with the front, its anterior margin subangulate-emarginate; eyes oblong, black, their inner edge slightly sinuate; jaws piceous, their apex black; antennæ filiform. Thorax slightly broader than long; sides nearly straight and parallel at the base, thence rounded and converging to the apex, all the angles tuberculate; surface deeply and remotely punctured, the punctures rather more crowded at the base and sides. Scutellum elongate-trigonate, its apex obtusely truncate. Elytra broader than the thorax, parallel, narrowly oblong, faintly impressed below the basilar space; humeral callus thickened; striæ entire, rather less strongly punctured towards the apex.

The narrow subcylindrical form will distinguish this species from its allies.

17. *Nodostoma Javanense*, n. sp.

Elongatum, angustatum, convexum, nigrum, nitidum; capite, thorace pedibusque rufo-fulvis; antennis, basi exceptis, nigris; thorace subremote punctato, lateribus pone medium angulatis; elytris thorace latioribus, parallelis, infra basin et intra callum humerale excavatis; striis ante medium sat fortiter punctatis, subsulcatis, interspatiis convexiusculis; striis pone medium minus fortiter punctatis, interspatiis planis; femoribus muticis.

Long. 2 lin.

Hab. Java.

Head exserted, deeply punctured; epistome forming a single piece with the front, its anterior border subangulate-emarginate; encarpæ not separated from the front; jaws and antennæ black, four lower joints of the latter fulvous. Thorax half as broad again as long; sides distinctly angled behind the middle, thence obliquely converging to the apex; upper surface coarsely but subremotely punctured. Elytra broader than the thorax, narrowly oblong, parallel, excavated below the base and within the humeral callus, the latter thickened; striæ entire, deeply punctured and subsulcate in front, the interspaces slightly convex; behind the middle they are less deeply punctured, and the interspaces plane.

18. *Nodostoma gratum*, n. sp.

Subelongatum, convexum, nigro-piceum, nitidum; antennis, pedibus elytrisque fulvis, his thorace multo latioribus, infra basin excavatis; striis sat fortiter punctatis, integris; punctis, lineâ suturali alterâque laterali, hac medio intus dilatatâ, piceis; thorace longitudine vix latiori, lateribus pone medium distincte angulatis, dorso subremote punctato; femoribus muticis.

Long. 1 lin.

Hab. Celebes.

Head prominent, coarsely punctured; interspaces on either side of the vertex reticulate-strigose; lower portion of the front impressed with a longitudinal groove; epistome wedge-shaped, continuous with the front, anterior margin angulate-emarginate. Thorax scarcely broader than long; sides rounded and converging from base to apex, distinctly angled behind the middle, the angle itself slightly produced; above deeply but remotely punctured, sides

obliquely deflexed in front. Scutellum trigonate. Elytra much broader than the thorax, oblong, excavated below the basilar space and within the humeral callus, the latter prominent; striæ strongly punctured, entire, the puncturing finer near the apex.

19. *Nodostoma nigripes*, Baly.

Desc. New Gen. and Spec. Phyt. p. 12.

Subelongatum, convexum, rufo-fulvum, nitidum; pedibus antennisque (harum basi exceptâ) nigris; thorace tenuiter remote punctato; elytris thorace latioribus, oblongis, infra basin et intra callum humerale excavatis, hoc elevato, in medio transversim depresso; striis integris, tenuiter punctatis; femoribus subtus dente brevi armatis.

Long. $2\frac{1}{2}$ lin.

Hab. Sumatra.

Head slightly prominent, rather short, distantly punctured; epistome forming a single piece with the front, its anterior border concave-emarginate, angles of the emargination produced, subacute; front impressed just above the eyes with a short longitudinal fovea; jaws nigro-piceous; antennæ robust, gradually thickened towards the apex, two basal joints fulvous. Thorax about one third as broad again as long; sides regularly rounded, not converging in front, all the angles armed with a subacute tooth; surface smooth and shining, remotely punctured. Scutellum longer than broad, its apex obtuse. Elytra broader than the thorax, oblong, deeply excavated below the basilar space and within the humeral callus, the latter strongly thickened, divided across the middle by a deep transverse depression; striæ entire, finely punctured, punctures rather more strongly impressed on the excavated portion of the surface.

20. *Nodostoma pictum*, n. sp.

Anguste oblongum, convexum, pallide piceum, nitidum; antennis pedibusque fulvis, supra fulvo-piceis; thorace sat profunde punctato, lateribus pone medium obsolete angulatis, nigro-piceo-marginatis; elytris fulvis, infra basin excavatis; striis sat fortiter punctatis, sulcatis, interspatiis convexis; callo humerali elevato, postice in costam elevatam prolongato; lineâ suturali infra basin dilatatâ, margine late-

rali, plagâ humerali fasciâque latâ pone medium, marginem lateralem attingente, disco interiori abbreviatâ, nigro-piceis; femoribus muticis.

Long. $1\frac{1}{3}$ lin.

Hab. Aru Islands, New Guinea.

Head coarsely but not closely punctured; epistome not separated from the front. Thorax more than twice as broad as long; sides rounded, obsoletely angled behind the middle, obliquely converging thence to the apex, hinder angles tuberculate; surface coarsely and deeply punctured on the sides, more finely punctured on the disk; lateral border nigro-piceous; basal margin broadly stained in the middle with piceous. Scutellum trigonate, its apex obtuse. Elytra oblong-ovate, excavated below the basilar space; striæ strongly punctured, entire, sulcate, interspaces slightly convex; humeral callus thickened, its lower end lost in an elevated costa, which runs downwards nearly to the apex of the elytron.

21. *Nodostoma armatum*, n. sp.

Anguste oblongum, convexum, pallide fulvo-piceum, nitidum, antennis (basi fulvâ exceptâ) elytrorumque suturâ et limbo inflexo nigris; thorace fortiter subremote punctato, lateribus pone medium angulatis; elytris fulvis, infra basin non excavatis, sat fortiter punctato-striatis; striis ante medium leviter sulcatis, interspatiis convexiusculis; striis pone medium tenuiter punctatis, interspatiis planis; pedibus fulvis, non elongatis, femoribus subtus dente brevi armatis.

Long. 2 lin.

Hab. Borneo.

Head scarcely exserted; front forming a single piece with the epistome, the anterior border of the latter concave-emarginate; surface of face impunctate, with the exception of a patch of deep punctures placed on either side close to the middle of the eye; on the middle of the front is a short longitudinal fovea; eyes prominent, their inner border sinuate; jaws piceous, their apex black; antennæ filiform, robust, black, three basal joints fulvous. Thorax twice as broad as long; sides angled behind the middle, the angle itself acute; anterior and posterior angles each armed with an obtuse tooth; upper surface coarsely and deeply but not very closely punctured. Scutellum oblong, its apex obtuse. Elytra parallel, not excavated below the base; striæ distinctly punctured, subsulcate, the interspaces convex; behind the middle the

striæ become very finely punctured, and the interspaces plane; the extreme sutural and lateral margins, together with the inflexed limb, black.

22. Nodostoma piceum, n. sp.

Subelongatum, convexum, piceum, nitidum; antennis pedibusque fulvis, genibus piceis; thorace profunde subcrebre punctato, subcylindrico, lateribus pone medium angulatis, dorso profunde subcrebre punctato; elytris oblongis, thorace multo latioribus, infra basin et intra callum humerale excavatis, spatio basilari paullo elevato, fere impunctato; striis infra basin fortiter punctatis, pone medium minus distinctis, apicem versus omnino deletis; utrisque apicem versus pallide rufo-piceis, plagâque latâ basali transversâ fulvâ ornatis; femoribus subtus dente brevi armatis.

Long. $1\frac{1}{2}$ lin.

Hab. Borneo.

Head exserted, rufo-piceous, coarsely but not closely punctured; epistome wedge-shaped, its apex not separated from the front, anterior border angulate-emarginate; jaws black. Thorax as broad as long; sides angled just behind the middle, in front of the angles slightly rounded and converging to the apex; anterior and posterior angles each armed with an obtuse tooth; above subcylindrical, deeply, coarsely and closely punctured; middle portion of anterior border broadly rufo-piceous. Scutellum elongate-trigonate, its apex obtuse. Elytra much broader than the thorax, oblong, deeply excavated below the basilar space, the latter thickened, nearly impunctate; within the humeral callus is a deeply sulcate stria, the callus itself prominent; striæ below the basilar space and on the surrounding space coarsely punctured, punctures finely impressed on the middle disk, entirely lost towards the apex; hinder third rufo-piceous; at the base is a large transverse fulvous patch which entirely covers the basilar space.

23. Nodostoma bipustulatum, n. sp.

Subelongatum, convexum, pallide piceum, nitidum; antennis pedibusque obscure fulvis; thorace lateribus rotundatis, pone medium obsolete angulatis, disco subfortiter remote, ad latera profundius subcrebre, punctato; elytris oblongis, thorace paullo latioribus, infra basin et intra callum humerale

excavatis, hoc elevato; spatio basilari paullo incrassato, fere impunctato; striis pone basin sat fortiter punctatis, punctis pone medium indistinctis, apicem versus fere obsoletis; utrisque plagâ magnâ basali, spatium basilare amplectente, fulvâ ornatis; femoribus subtus dente brevi armatis.

Long. 1 lin.

Hab. Borneo.

Head deeply and irregularly punctured; epistome forming a single piece with the front; eyes prominent, their inner edge sinuate. Thorax scarcely broader than long; sides slightly but distinctly angled behind the middle, in front obliquely converging and slightly rounded to the apex; above convex, sides obliquely deflexed in front, coarsely punctured, more finely and less closely punctured on the disk. Elytra rather broader than the thorax, broadly oblong, excavated below the basilar space and within the humeral callus, the latter prominent; striæ distinctly punctured in front, very finely punctured and nearly obsolete behind the middle; basilar space slightly thickened, nearly impunctate, its surface covered with a large fulvous patch.

24. *Nodostoma fulvipes*, n. sp.

Subelongatum, convexum, obscure piceum, nitidum; antennis pedibusque fulvis; thorace sat profunde remote punctato, lateribus pone medium angulatis; elytris thorace latioribus, oblongis, infra basin excavatis, intra callum humerale sulcatis, hoc incrassato, postice in costam obliquam producto; striis pone medium fere obsoletis, ante medium punctis magnis fortiter impressis; spatio basilari paullo elevato, minus fortiter punctato; femoribus muticis, dente minuto armatis.

Long. 1 lin.

Hab. Northern part of New Guinea; Sulu Islands.

Head slightly exserted, strongly punctured; middle of the front impressed with a faint longitudinal groove; epistome wedge-shaped, not separated at its apex from the front, its anterior border concave-emarginate, the border itself narrowly reflexed; encarpæ separated from the front by a deep groove; eyes prominent, nearly entire. Thorax more than half as broad again as long; sides obtusely angled behind the middle, thence to the apex obliquely narrowed and slightly rounded; upper surface strongly and remotely punctured on the disk, more closely and still more strongly punctured on the sides. Scutellum longer

than broad, trigonate, its apex obtuse. Elytra oblong, broadly excavated below the basilar space, longitudinally sulcate within the humeral callus, the latter thickened, its lower extremity produced downwards into a short elevated costa, which runs obliquely downwards and outwards to the lateral border; striæ impressed with large round punctures, which, deep and distinct on the anterior disk, become very shallow behind the middle, and are nearly lost towards the apex; basilar space thickened, nearly impunctate.

This species bears some resemblance to *Rhyparida lateralis* (*ante*, p. 210).

C. *Antennæ filiform or subfiliform; body elongate or subelongate, metallic.*

25. *Nodostoma tuberculatum*, n. sp.

Elongatum, convexum, viridi-metallicum; antennis nigris; tibiis, tarsis elytrisque viridi-cæruleis; his anguste viridi-limbatis, infra basin sat profunde excavatis, utrisque ad humeros irregulariter tuberculatis, callo humerali elevato; striis fortiter punctatis, leviter sulcatis; interspatiis obsolete convexiusculis.

Long. $2\frac{1}{2}$—3 lin.

Hab. Tondano.

Head slightly prominent; face plane; surface irregular, coarsely punctured; middle of the front impressed with a faint longitudinal line; epistome not separated from the front, its anterior border angulate-emarginate, angles of the notch each produced into a broad subacute tooth; encarpæ separated from the front by a grooved line, the surface of the latter impressed with a single row of punctures; eyes oblong, subprominent, nearly entire; antennæ black, with a purplish reflexion, basal joints stained with metallic-green above, piceous beneath; jaws black; labrum nigro-piceous. Thorax more than half as broad again as long; sides rounded, obsoletely angled behind the middle, thence to the apex obliquely converging, very slightly angled just before the middle; surface shining, subremotely impressed with deep punctures; just behind the anterior border is a deep transverse sulcation. Scutellum longer than broad, subpentagonal, sides converging. Elytra broader than the thorax, oblong, deeply excavated below the basilar space, longitudinally sulcate within the humeral callus, the

latter elevated into an oblique ridge; just below the callus is a transverse curved ridge, concave upwards, thickened at its inner end, but gradually diminishing in thickness as it approaches the outer border; a short distance below is a stout obtuse tubercle, still lower is a longitudinal ridge, which runs parallel to the lateral border of the thorax, and becomes gradually lost below the middle of the elytron; striæ slightly sulcate, entire, distinctly punctured, the punctures placed somewhat irregularly; interspaces very remotely and distantly punctured, obsoletely convex; basilar space slightly thickened, nearly as strongly punctured as the rest of the anterior disk, interspace on its outer margin raised, costate.

26. *Nodostoma latcripunctatum*, n. sp.

Subelongatum, convexum, viridi-metallicum, nitidum; antennis nigris; thorace lateribus rotundatis, foveolatis, disci medio subremote punctato; elytris thorace latioribus, oblongis, parallelis, infra basin late excavatis; striis integris, ante medium sat fortiter, pone medium tenuiter punctatis, interspatiis planis; femoribus subtus dente minuto armatis.

Long. $1\frac{3}{4}$ lin.

Hab. Singapore.

Head moderately exserted, very remotely punctured; epistome forming a single piece with the front, its anterior border concave-emarginate, angles of the notch produced, acute; encarpæ separated from the front by a deep groove; front itself impressed in the middle with a short longitudinal groove; antennæ slender, filiform, nearly equal to the body in length; labrum fulvous. Thorax two-thirds as broad again as long; sides obtusely rounded, very indistinctly angled behind the middle; hinder angles tuberculate, anterior unarmed; upper surface transversely convex, almost subcylindrical, impressed just behind the anterior border with a distinct transverse groove; a narrow space in the middle subremotely impressed with small but deep punctures; sides closely covered with large round deeply excavated punctures. Scutellum longer than broad, semiovate. Elytra broader than the thorax, oblong, excavated below the basilar space; striæ deeply and strongly punctured before the middle, very finely punctured towards the apex; interspaces plane. Thighs moderately thickened, armed beneath with a very minute tooth.

27. *Nodostoma cupripenne*, n. sp.

Elongatum, convexum, obscure æneum, nitidum; antennis tarsisque obscure fulvis; thorace subremote punctato, lateribus rotundatis, in medio angulatis; elytris cupreis, thorace vix latioribus, oblongis, parallelis, infra basin non excavatis, fortiter punctato-striatis, striis pone medium indistinctis, interspatiis planis; femoribus muticis.

Long. 1½ lin.

Hab. Borneo (Sarawak).

Front slightly convex, deeply and irregularly but not very closely punctured; epistome forming a single piece with the front, its anterior border trisinuate; jaws rufo-piceous, the apex black. Thorax twice as broad as long; lateral border slightly dilated, its middle distinctly angled; surface deeply and coarsely but subremotely punctured. Elytra scarcely broader than the thorax, oblong, parallel, not excavated below the basilar space; on the outer disk in front are a few faint transverse wrinkles; striæ strongly punctured in front, indistinct behind the middle, nearly obsolete towards the apex.

28. *Nodostoma cupreatum*, n. sp.

Subelongatum, convexum, fusco-æneum, nitidum, supra cupreum; antennis subfiliformibus, nigris, basi fulvis; thorace fortiter subremote punctato, lateribus paullo dilatatis, rotundatis, in medio distincte angulatis; elytris thorace paullo latioribus, oblongis, infra basin vix excavatis, striis integris, fortiter punctatis; femoribus muticis.

Long. 1½ lin.

Hab. Borneo (Sarawak).

Head remotely punctured; epistome forming a single piece with the front, its anterior border subangulate-emarginate; middle of the front impressed with a faint longitudinal groove; encarpæ separated from the front by a deep longitudinal groove; labrum obscure fulvous; jaws piceous, their apex black; antennæ subfiliform, half the length of the body, seven outer joints slightly compressed, black, four lower joints obscure fulvous. Thorax rather more than twice as broad as long; sides rounded, distinctly angled in the middle; anterior and posterior angles each armed with an obtuse tooth; lateral border narrowly dilated; upper surface deeply but subremotely punctured. Scutellum broadly

semiovate. Elytra scarcely broader than the thorax, oblong, very slightly excavated below the basilar space; striæ entire, strongly punctured, more finely punctured below the middle; interspaces plane. Thighs thickened.

D. *Antennæ subfiliform, seven outer joints compressed and moderately dilated; body ovate, metallic.*

29. *Nodostoma aureoeupreum*, n. sp.

Breviter ovatum, valde convexum, cæruleo-nigrum, nitidum; pedibus cæruleis, viridi-micantibus; supra aureo-cupreum, nitidissimum, metasterno, thoracis lateribus inferioribus elytrorumque limbo inflexo viridibus; thorace subremote punctato, lateribus in medio obsolete angulatis; elytris thorace vix latioribus, infra basin et intra callum humerale excavatis, sat fortiter punctato-striatis, striis integris, interspatiis planis; femoribus muticis.

Long. 2½ lin.

Hab. Borneo (Sarawak).

Head short, broad, subremotely punctured; epistome forming a single piece with the front, its anterior border angulate-emarginate, sides of the notch produced, obtuse; encarpæ thickened, separated from the front by a deep groove; middle of front impressed with a short longitudinal groove; labrum fulvous; jaws nigro-piceous; eyes prominent, their inner border slightly sinuate; antennæ subfiliform, half the length of the body, seven outer joints compressed and gradually dilated to the apex, outer half of apical joint white. Thorax more than twice as broad as long; sides rounded, obtusely angled in the middle; anterior and posterior angles armed each with an obtuse tooth; upper surface subremotely punctured, transversely convex, sides deflexed in front. Elytra slightly broader than the thorax, subquadrate-ovate, distinctly excavated below the basilar space, humeral callus thickened; striæ distinctly punctured, interspaces plane. Thighs moderately thickened.

E. *Antennæ filiform or subfiliform; body ovate or oblong, rarely nonmetallic.*

30. *Nodostoma rufum*, Clark.

Rhyparida rufa, Clark, Ann. and Mag. Nat. Hist., Feb. 1865.

Oblongum, valde convexum, rufo-testaceum, nitidum; antennis rufo-fulvis, corporis longitudini fere æqualibus, filiformi-

bus, articulis compressis, intermediis vix dilatatis; thorace hic illic fortiter subremote punctato, lateribus rotundatis, pone medium angulatis; elytris thorace latioribus, convexis, infra basin leviter excavatis, intra callum humerale sulcatis, hoc incrassato; striis integris, fortiter punctatis, interspatiis planis; margine exteriori ad apicem paullo dilatato; femoribus incrassatis, subtus dente parvo armatis.

Var. A. Elytris rufo-testaceis, apice nigris.

Var. B. Elytris nigris, plagâ magnâ communi basali rufo-testaceâ.

Var. C. Elytris totis nigris.

Long. $4\frac{1}{2}$ lin.

Hab. Pulo-Penang.

Head remotely and irregularly punctured; epistome forming a single piece with the front, its anterior border angulate-emarginate, angles of the notch slightly produced, subacute; middle of the front impressed with a faint longitudinal groove; jaws piceous, their apex black; antennæ nearly equal to the body in length, eight outer joints closely clothed with adpressed concolorous hairs, the second and third joints short, equal, the fourth and following compressed and very slightly dilated, the joints after the sixth very slightly diminishing in width towards the apex. Thorax twice as broad as long; sides rounded, angled behind the middle, notched just in front of the hinder angle; upper surface deeply but remotely punctured, the punctures irregularly scattered over the whole disk; just behind the anterior margin is a transverse groove, its surface impressed with a single row of deep punctures. Scutellum nearly twice as long as broad, sides converging backwards. Elytra much broader than the thorax; sides nearly parallel; apex broadly rounded; the hinder portion of the lateral border very narrowly dilated; convex, very slightly excavated below the basilar space, sulcate within the humeral callus, the latter thickened; striæ entire, strongly punctured, interspaces plane. Thighs incrassate.

31. *Nodostoma atripenne*, Clark.

Rhyparida atripennis, Clark, Ann. and Mag. Nat. Hist., Feb. 1865.

Oblongum, convexum, rufo-fulvum, nitidum; antennis pallide fulvis, corpore vix longioribus, filiformibus, articulis compressis; thorace hic illic fortiter subremote punctato, lateribus paullo rotundatis, a basi ad apicem convergentibus; elytris

nigris, thorace latioribus, parallelis, apice late rotundatis, convexis, infra basin et intra callum humerale excavatis, limbo laterali paullo dilatato; striis integris, fortiter punctatis, interspatiis planis; femoribus incrassatis, subtus dente parvo armatis.

Long. $3\frac{1}{2}$ lin.

Hab. Pulo-Penang.

Head moderately exserted, coarsely but distantly punctured; epistome wedge-shaped, continuous at its apex with the front, its anterior border subangulate-emarginate, angles of the notch not produced, obtuse, surface more closely punctured than the front; encarpæ not separated from the front; jaws rufo-piceous, the apex black; antennæ slightly longer than the body, filiform, eight outer joints compressed, closely clothed with concolorous hairs. Thorax nearly twice as broad as long; sides moderately rounded, obliquely converging from base to apex, all the angles tuberculate; surface deeply and coarsely but not closely punctured, the punctures irregularly scattered over the whole disk; just behind the anterior border is a transverse groove. Scutellum elongate, subtrigonate. Elytra black, much broader than the thorax, broadly oblong, lateral border very narrowly dilated; above convex, rather deeply excavated below the basilar space, longitudinally sulcate within the humeral callus, the latter thickened; striæ entire, strongly punctured; interspaces plane, sparingly impressed with very minute punctures.

32. *Nodostoma collare*, n. sp.

Breviter oblongo-ovatum, valde convexum, nigrum, nitidum; capite (antennis subfiliformibus exceptis) et thorace rufis; hoc remote punctato; elytris thorace latioribus, quadrato-ovatis, infra basin et intra callum humerale excavatis, hoc elevato; striis integris, tenuiter punctatis, punctis apicem versus tenuissime impressis; femoribus basi scutelloque rufo-piceis; illis incrassatis, subtus dente brevi armatis.

Long. 2 lin.

Hab. Borneo (Sarawak).

Head smooth and shining, very finely and sparingly punctured; epistome much longer than broad, forming a single piece at its apex with the front, sides nearly parallel, slightly rounded, converging towards the apex, anterior border angulate-emarginate, angles of the notch slightly produced, subacute; encarpæ sepa-

rated from the front by a shallow sutural groove; antennæ two-thirds the length of the body, subfiliform, seven outer joints slightly compressed and thickened, three or four lower joints rufo-piceous; jaws piceous. Thorax twice as broad as long; sides rounded and converging from base to apex; hinder angles tuberculate; disk sparingly impressed with deep punctures, which are irregularly scattered over the whole surface; just behind the anterior border is a transverse groove, which extends entirely across the thorax. Scutellum scarcely longer than broad, rufo-piceous. Elytra broader than the thorax, convex, slightly excavated below the basilar space; humeral callus slightly thickened; striæ entire, finely punctured; interspaces plane, distantly impressed with very minute punctures; lateral border narrowly dilated.

33. *Nodostoma æneipenne*, n. sp.

Ovatum, valde convexum, rufo-fulvum, nitidum; antennis filiformibus, nigris (basi exceptâ); genibus, tibiis tarsisque nigro-piceis; thorace transverso, lateribus paullo ante basin abrupte angulatis, hinc ad apicem oblique convergentibus, dorso sat profunde subremote punctato; elytris æneis, thorace paullo latioribus, convexis, margine laterali paullo dilatato; infra basin et intra callum humerale excavatis; striis integris, ante medium (præsertim ad latera) profunde punctatis, punctis pone medium minus fortiter impressis; femoribus incrassatis, subtus dente acuto armatis.

Long. 2 lin.

Hab. Malacca (Mount Ophir).

Head slightly exserted, short, remotely impressed with large deep punctures; epistome forming a single piece with the front, its anterior border deeply angulate-emarginate; encarpæ slightly thickened, not distinctly separated from the front; jaws black, their middle portion rufo-piceous; antennæ filiform, rather more than half the length of the body, four lower joints obscure fulvous, third joint nearly twice the length of the second. Thorax at the base more than twice as broad as long; sides with the lateral border very narrowly dilated, abruptly angled just in front of the base, thence obliquely converging to the apex; anterior and posterior angles tuberculate; surface subremotely impressed with large deep punctures, which are irregularly scattered over the disk; just behind the anterior border is a deep transverse groove, the surface of which is impressed with a single row of transversely

oblong punctures. Scutellum longer than broad, subpentagonal. Elytra slightly broader than the thorax, their lateral margin narrowly dilated, convex, excavated below the basilar space and within the humeral callus, the latter thickened; striæ entire, deeply and strongly punctured on the anterior disk, more especially towards the outer border; behind the middle and on the basilar space the punctures are smaller and less deeply impressed.

34. *Nodostoma viride*, n. sp.

Breviter ovatum, valde convexum, viridi-metallicum, nitidum, supra æneo-micans, antennis nigris, abdomine cæruleo-æneo; thorace subremote fortiter punctato, punctis hic illic irregulariter congregatis, lateribus rotundatis; elytris thorace paullo latioribus, limbo exteriori paullo dilatato, infra basin et intra callum humerale excavatis, sat fortiter punctato-striatis, striis integris, pone medium minus fortiter punctatis, interspatiis obsolete convexiusculis; femoribus muticis.

Long. 2 lin.

Hab. Sumatra.

Head distantly punctured; epistome longer than broad, forming a single piece at its apex with the front, sides nearly straight and parallel, anterior border deeply angulate-emarginate, angles of the notch produced, acute; labrum metallic-green; encarpæ not distinctly separated from the front; middle of the front impressed with an oblong fovea; antennæ half the length of the body, moderately robust, black, four basal joints glabrous, nitidous, the rest opake, clothed with adpressed hairs. Thorax twice as broad as long; sides rounded, very indistinctly angled behind the middle, anterior and posterior angles tuberculate; surface impressed with deep punctures, which are irregularly congregated in patches over the surface. Scutellum as broad at the base as long, subpentagonal, its apex impressed with a small fovea. Elytra slightly broader than the thorax, subquadrate-ovate, their outer limb narrowly dilated; above convex, excavated below the basilar space and within the humeral callus, the latter thickened, the basilar space also slightly raised; striæ entire, strongly punctured, the puncturing rather less strongly impressed below the middle and on the basilar space; interspaces obsoletely convex. Thighs incrassate.

35. *Nodōstoma æneomicans*, n. sp.

Ovatum, valde convexum, viridi-metallicum, supra æneo-micans, nitidum; abdomine nigro-æneo; antennis nigris, basi fulvis; thorace sat fortiter subremote punctato, lateribus fere rectis, oblique convergentibus; elytris thorace paullo latioribus, limbo exteriori paullo inerassato, infra basin leviter excavatis, fortiter punctato-striatis, striis leviter sulcatis, pone medium minus fortiter impressis, interspatiis obsolete convexiusculis, tenuissime remote punctatis; femoribus muticis.

Long. $1\frac{2}{3}$ lin.

Hab. Malacca.

Head deeply inserted in the thorax, distantly punctured; epistome forming a single piece with the front, its anterior border deeply angulate-emarginate, angles of the notch produced, acute; encarpæ separated from the front by a shallow groove; labrum nigro-piceous; jaws black. Thorax rather more than twice as broad as long; sides nearly straight, obliquely converging from base to apex; upper surface subremotely impressed with large round punctures; just behind the anterior border is a deep transverse groove. Scutellum broader than long, subpentagonal. Elytra rather broader than the thorax, convex, lateral border narrowly dilated; excavated below the basilar space, slightly sulcate within the humeral callus, the latter thickened; striæ very slightly sulcate, strongly and coarsely punctured on the anterior disk, more finely punctured behind the middle; the interspaces slightly convex.

36. *Nodostoma nitidum*, n. sp.

Oblongo-ovatum, viridi-metallicum, supra æneo-micans, nitidum; antennis nigris, basi fulvis; thorace tenuiter subremote punctato, lateribus rotundatis, paullo dilatatis, in medio obsolete angulatis; elytris thorace latioribus, infra basin leviter excavatis, striis integris, distincte punctatis, interspatiis planis; femoribus muticis.

Long. $1\frac{2}{3}$ lin.

Hab. Sarawak.

Head short, very slightly exserted, distinctly but remotely punctured; epistome forming a single piece with the front, its anterior border concave-emarginate, angles of the notch not produced, very obtuse; encarpæ separated from the front by a dis-

tinct groove; middle of the front impressed with a short but deep longitudinal groove; labrum rufous; jaws nigro-piceous; antennæ rather more than half the length of the body, seven outer joints compressed and thickened, gradually but slightly dilated toward the apex of the antennæ, terminal joint ovate, four lower joints obscure fulvous. Thorax twice as broad as long; sides rounded, very obtusely angled in the middle, lateral border narrowly dilated, anterior and posterior angles tuberculate; upper surface transversely convex; sides obliquely deflexed in front, distinctly but subremotely punctured. Scutellum broader than long, subpentagonal. Elytra slightly broader than the thorax, convex, slightly excavated below the basilar space and within the humeral callus, the latter thickened; striæ entire, distinctly but somewhat finely punctured; the interspaces plane; lateral margin narrowly dilated.

37. *Nodostoma basale*, n. sp.

Ovatum, valde convexum, viridi-metallicum, nitidum; pedibus cyaneo-æneis; antennis filiformibus, (basi piceâ exceptâ) nigris; thorace subremote punctato, cretâ brevi basali elevatâ instructo, lateribus rotundatis, a basi ad apicem convergentibus; elytris thorace latioribus, convexis, breviter oblongis, infra basin et intra callum humerale excavatis; striis integris, sat fortiter punctatis, punctis in spatio basilari et pone medium magis tenuiter impressis; interspatiis obsolete convexiusculis; margine laterali anguste dilatato; femoribus incrassatis, subtus dente minuto armatis.

Long. 2 lin.

Hab. Java.

Very similar in coloration and sculpturing to *N. viride* (*ante*, p. 236); body narrower and more parallel; head rather more closely and more irregularly punctured; middle of front slightly convex; labrum notched as in the above-named species; sides of thorax less rounded, middle portion nearly straight; placed on the centre of the basal margin is a short strongly-raised longitudinal ridge. Thighs armed beneath with a very minute tooth.

38. *Nodostoma viridicæneum*, Baly.

(*N. viridicænea*), Desc. New Gen. and Spec. Phyt. p. 12.

Oblongum, convexum, viridi-æneum, nitidum, subtus obscure nigro-cæruleum; pedibus viridi-micantibus; thorace sat cre-

bre profunde punctato, interstitiis irregulariter elevato-strigosis; elytris infra basin et intra callum humerale sat profunde excavatis, fortiter punctato-striatis, striis antice sulcatis, apicem versus minus distincte punctatis, interspatiis convexiusculis; femoribus inermibus.

Long. 2 lin.

Hab. Tondano.

Head slightly elongate, very coarsely punctured; anterior margin of epistome deeply and broadly angulate-emarginate, angles of the notch acute; labrum black; antennæ slender, nigro-piceous, four or five basal joints obscure fulvous, stained above with piceous; jaws rather prominent, black. Thorax nearly twice as broad at the base as long; sides rounded at the extreme base, thence obliquely converging to the apex; surface transversely convex, covered with numerous irregularly reticulating long elevated strigæ, their interspaces impressed with large deep punctures; just behind the anterior margin is a transverse groove. Elytra broadly oblong, punctate-striate, the striæ deeply punctured, distinctly sulcate in front, more finely punctured posteriorly; basilar space bounded externally and below by a deep groove; humeral callus thickened, divided transversely by a deep punctate groove.

39. *Nodostoma nigroæneum*, n. sp.

Ovatum, convexum, nigrum, nitidum, supra obscure æneo-nigrum; pedibus cæruleo-æneo-tinctis; antennis filiformibus, nigris, basi pallide piceis; thorace subcrebre profunde punctato, interspatiis ad latera elevato-reticulatis, lateribus rotundatis, a basi ad apicem convergentibus; elytris thorace latioribus, breviter oblongis, convexis, margine laterali paullo incrassatis, infra basin et intra callum humerale excavatis; striis leviter sulcatis, ante medium fortiter, pone medium magis tenuiter punctatis, interspatiis leviter convexiusculis; femoribus incrassatis, muticis.

Long. 2 lin.

Hab. Tondano.

Head coarsely and deeply punctured; anterior margin of epistome angulate-emarginate, angles of the notch subacute; antennæ filiform, more than half the length of the body, four lower joints pale piceous; jaws slightly prominent, black; labrum black, its anterior border fulvous. Thorax twice as broad as long; sides

rounded, converging from behind the middle to the apex; anterior angles acute, posterior angles armed with an obtuse tooth; surface covered with large deep punctures, interspaces on the sides elevate-reticulate. Scutellum longer than broad, semiovate, sides converging from before backwards. Elytra similar in form and sculpturing to *N. viridiæneum*.

Very nearly allied to *N. viridiæneum*, and possibly a variety of that species; sides of thorax more regularly rounded, disk less closely covered with raised reticulations.

40. *Nodostoma strigicolle*, n. sp.

Oblongo-ovatum, convexum, nigrum, nitidum; antennis filiformibus, basi fulvis; thorace elevato-strigoso-reticulato, interspatiis profunde punctatis, lateribus rotundatis, a basi ad apicem convergentibus; elytris late oblongis, convexis, infra basin et intra callum humerale excavatis; striis ante medium sulcatis, sat fortiter punctatis, interspatiis convexis, pone medium tenuiter punctatis, interspatiis fere planis; femoribus incrassatis, muticis.

Long. 2 lin.

Hab. Celebes.

Head coarsely rugose-punctate; anterior border of epistome angulate-emarginate, angles of the notch subacute; jaws prominent; antennæ more than half the length of the body, filiform, three basal joints obscure fulvous, basal joints stained above with piceous. Thorax twice as broad as long; sides rounded and converging from base to apex, middle third very slightly sinuate; all the angles armed with an obtuse tooth; surface closely covered with coarse raised reticulations, the interspaces deeply punctured; just behind the anterior border is a transverse sulcation, extending over the entire surface. Scutellum longer than broad, pentagonal, sides parallel. Elytra broader than the thorax, lateral border very slightly dilated, convex, excavated below the basilar space and within the humeral callus, the latter thickened; striæ entire, sulcate and strongly punctured on the anterior disk, finely punctured and very obsoletely sulcate behind the middle; interspaces convex in front, nearly plane posteriorly.

41. *Nodostoma foveicolle*, Baly.

(*N. foveicollis*), Desc. New Gen. and Spec. Phyt. p. 12.

Oblongum, convexum, nigrum, nitidum; antennis filiformibus, basi obscure fulvis; thorace crebre foveolato-punctato, in-

terspatiis elevato-reticulatis, ad latera reticulato-strigosis, lateribus rotundatis, a basi ad apicem convergentibus ; elytris thorace latioribus, breviter oblongis, convexis, infra basin excavatis ; striis sulcatis, sulcis pone medium minus fortiter impressis, vermiculato-punctatis, interspatiis ante medium convexis, pone medium convexiusculis ; femoribus modice incrassatis, muticis.

Long. $1\frac{3}{4}$ lin.

Hab. Tondano.

Head coarsely and irregularly punctured ; anterior border of epistome subangulate-emarginate, angles of the notch acute ; labrum and jaws piceous ; antennæ filiform, three-fourths the length of the body, two lower joints fulvous, the basal stained above with piceous, third and fourth joints piceous. Thorax nearly twice as broad as long ; sides rounded, converging from behind the middle to the apex ; upper surface closely covered with large deeply-impressed punctures, interspaces coarsely elevate-reticulate, reticulate-strigate on the sides ; just behind the anterior border is a transverse sulcation, extending entirely across the surface. Scutellum pentagonal, the apical angle indistinct. Elytra broader than the thorax, parallel, broadly oblong, excavated below the basilar space and within the humeral callus, the latter thickened ; striæ sulcate, sulci less deeply impressed behind the middle, vermiculate-punctate ; interspaces raised and convex in front, very slightly convex behind the middle.

42. *Nodostoma piceipes*, n. sp.

Oblongum, convexum, cyaneo-æneum, nitidum ; antennis fulvis, pedibus rufo-piceis ; thorace lateribus rotundatis, a basi ad apicem rotundatis, fortiter subremote punctato ; elytris thorace latioribus, subquadrato-oblongo, margine laterali paullo dilatatis, infra basin et intra callum humerale excavatis ; striis sat fortiter punctatis, leviter sulcatis, punctis ad apicem minus fortiter impressis ; interspatiis prope suturam et ad marginem lateralem convexis ; femoribus (præsertim anticis) incrassatis, subtus dente minuto armatis, intermediis muticis.

Long. $1\frac{2}{3}$ lin.

Hab. New Guinea (Salwatty).

Head coarsely and deeply but not very closely punctured ; epistome forming a single piece with the front, its anterior border

angulate-emarginate, angles of the notch moderately produced, obtuse, stained with pale piceous; labrum broad fulvous; jaws nigro-piceous; antennæ nearly equal to the body in length, filiform, pale fulvous. Thorax twice as broad as long; sides rounded, converging from just before the base to the apex, all the angles tuberculate; surface impressed with large deep punctures; just behind the anterior border is a transverse groove. Scutellum trigonate, its apex obtuse. Elytra broader than the thorax, subquadrate-oblong, convex, lateral border narrowly dilated; excavated below the basilar space and within the humeral callus, the latter thickened, impressed below its middle with a transverse groove; from the lower extremity of the callus a distinct costa runs parallel to the outer border, and is gradually lost below the middle of the elytron; striæ strongly punctured, sulcate for the anterior two-thirds of their course, rather more finely punctured towards the apex; interspaces slightly convex, plane posteriorly. Front pair of thighs stained on their apical half with piceous.

43. *Nodostoma pulchellum*, n. sp.

Oblongum, convexum, viridi-æneum, nitidum, subtus (pectore excepto) nigrum; pedibus obscure cæruleo-æneis, viridi-tinctis; thorace lateribus rotundatis, pone medium angulatis, profunde punctato, interspatiis ad latera et in disci medio elevato-reticulatis; elytris thorace latioribus, subquadrato-oblongis, margine laterali paullo dilatato, infra basin et intra callum humerale excavatis, fortiter punctato-striatis, interspatiis leviter convexiusculis, striis ad latera profunde punctatis, interspatiis fere costatis; femoribus incrassatis, muticis.

Long. 1 lin.

Hab. New Guinea, Waigiou.

Head coarsely punctured, clothed with whitish adpressed hairs; anterior border of epistome subangulate-emarginate; labrum metallic-green; jaws black; antennæ black, basal half obscure fulvous, basal joint stained above with metallic-green. Thorax twice as broad as long; sides rounded, distinctly angled behind the middle, coarsely and deeply punctured, interspaces on the sides and middle disk elevate-reticulate; just behind the anterior border is a shallow transverse groove. Scutellum longer than broad, subpentagonal. Elytra much broader than the thorax, subquadrate-oblong, lateral border distinctly dilated; convex, ex-

cavated below the basilar space and within the humeral callus, the latter thickened; striæ strongly and coarsely punctured, less strongly punctured behind the middle, striæ on the outer disk sulcate, the interspaces thickened, those on the inner disk and towards the apex nearly plane; basilar space slightly thickened, more finely punctured than the succeeding portion of the anterior disk.

44. *Nodostoma affine*, n. sp.

Oblongum, convexum, nigrum, nitidum, pedibus viridi-metallicis, supra viridi-metallicum, æneo-micans; antennis filiformibus, nigris, basi fulvis, articulo basali supra viridi-tincto; thorace in disci medio subremote et tenuiter, ad latera crebre et profunde punctato, lateribus rotundatis, a basi ad apicem convergentibus; elytris thorace latioribus, subquadrato-oblongis, margine laterali distincte dilatato, convexis, infra basin et intra callum humerale excavatis; striis fortiter punctatis, interspatiis fere planis, striis ad latera magis fortiter et profunde impressis, interspatiis elevatis, spatio basilari paullo elevato, minus fortiter punctato; femoribus muticis.

Long. 1—1¼ lin.

Hab. Aru Islands, New Guinea.

Very similar in form and coloration to *N. pulchellum*. Head finely granulose; labrum fulvous, not metallic; sides of the thorax rounded, not angulate; its upper surface much more finely punctured on the disk, interspaces not thickened.

45. *Nodostoma evanescens*, Baly.

Desc. New Gen. and Spec. Phyt. p. 13.

Oblongum, convexum, nigrum, nitidum; thorace profunde punctato, basi et lateribus viridi-metallicis; elytris thorace latioribus, parallelis, infra basin excavatis, fortiter punctato-striatis, lineâ suturali, limbo laterali dilatato, fasciâque arcuatâ infra basin positâ, viridi-metallicis; femoribus muticis.

Long. 1 lin.

Hab. New Guinea.

Head coarsely punctured; anterior border of epistome angulate-emarginate; labrum black; antennæ about half the length of the body, moderately robust, black, four lower joints piceous beneath. Thorax twice as broad as long; sides rounded, converging in front, angulate just behind the middle, the angle slightly pro-

duced into a very short acute tooth; above very convex, very coarsely and deeply punctured, interspaces on the sides elevate-reticulate. Scutellum metallic-green, longer than broad, semi-ovate, its sides converging backwards. Elytra much broader than the thorax, subquadrate-oblong, convex, lateral border distinctly dilated; excavated below the basilar space, sulcate within the humeral callus, the latter thickened; striæ strongly punctured, sulcate, impressed with large raised foveolate punctures on the outer disk in front, interspaces towards the outer border thickened; basilar space slightly thickened, more finely punctured than the rest of the anterior disk; the sutural and outer borders, a transverse slightly-curved band placed on the subbasilar depression, together with a patch on the upper part of the humeral callus, bright metallic-green.

46. *Nodostoma scabrosum*, Baly.

(*N. scabrosa*), Desc. New Gen. and Spec. Phyt. p. 12.

Breviter oblongum, convexum, piceum, subnitidum; thorace transverso, lateribus pone medium angulatis, rugoso-punctato; elytris infra basin transversim excavatis, rugoso-punctatis, valde elevato-costatis, costis alternis disci minus distincte elevatis, irregulariter vermiculatis, costis disci exterioris in medio interruptis; femoribus subtus obsolete spinosis, anticis basi, quatuor posticis fere totis, elytrorumque vittis nonnullis, supra costas ante medium positis, pallide fulvo-piceis.

Long. 2 lin.

Hab. Borneo (Sarawak).

Head slightly exserted, coarsely punctured; vertex piceous; front impressed between the eyes with a short longitudinal groove, obscure fulvous, more or less stained with piceous; anterior margin of epistome wedge-shaped, subangulate-emarginate; encarpæ separated from the front by a deeply punctured groove; labrum piceo-fulvous; jaws black; antennæ slender, filiform, nearly equal to the body in length, two lower joints fulvous, the rest black. Thorax twice as broad as long; sides angled behind the middle, thence obliquely converging to the apex, anterior and posterior angles each armed with an obtuse tooth; upper surface transversely convex, obliquely excavated on either side of the middle disk, coarsely rugose-punctate, interspaces irregularly thickened; anterior border bounded within by a deep transverse

groove. Scutellum scarcely longer than broad, trigonate, its apex obtuse; surface thickened, smooth and shining, impunctate. Elytra broader than the thorax, subquadrate-oblong, their apex broadly rounded; convex, excavated below the basilar space, punctate-striate, humeral callus thickened; striæ sulcate, rather strongly punctured in front, less deeply punctured behind the middle, interspaces thickened, every alternate one on the inner two-thirds of the disk, and each one on the outer third, forming a broad longitudinal costa, those on the outer disk interrupted in the middle of their course, the remaining interspaces much broken up by deep foveæ, and irregularly vermiculate; on the anterior disk, placed on the costæ, are four or five short fulvous vittæ.

47. *Nodostoma tibiale*, n. sp.

Breviter ovatum, convexum, nigrum; tibiis (basi exceptâ) tarsisque piceo-fulvis; supra obscure viridi-æneum, antennis nigris; thorace lateribus rotundatis, disco subremote, ad latera crebre profunde punctato, interspatiis ad latera elevato-reticulatis; elytris thorace latioribus, quadrato-oblongis, convexis, margine laterali paullo dilatato, infra basin leviter excavatis, intra callum humerale sulcatis, callo elevato; striis fortiter punctatis, integris, sulcatis, interspatiis convexis, iis prope marginem elevatis; femoribus incrassatis, subtus muticis.

Long. $1\frac{1}{3}$ lin.

Hab. Borneo.

Head remotely punctured; front impressed with a longitudinal groove; epistome wedge-shaped, its anterior border slightly angulate-emarginate, angles of the notch obtuse; antennæ filiform, slender, black, four basal joints obscure fulvous, stained with piceo-æneous above. Thorax twice as broad at the base as long; sides rounded and converging from base to apex; upper surface coarsely and deeply but subremotely punctured on the disk, sides closely covered with large deep punctures, interspaces on the sides elevate-reticulate; just behind the anterior margin is a shallow transverse groove. Scutellum as broad as long, semiovate, its apex subacute. Elytra broader than the thorax, parallel, apex broadly rounded, lateral border narrowly dilated; convex, slightly excavated below the basilar space, deeply sulcate within the humeral callus, the latter thickened; striæ strongly punctured,

sulcate, interspaces convex, those on the outer disk thickened. Anterior thighs strongly thickened.

48. *Nodostoma imperiale*, n. sp.

Breviter ovatum, convexum, viridi-cyaneum, nitidum; abdomine nigro-cæruleo; antennis filiformibus, nigris, basi fulvis; thorace lateribus rotundatis, disco subremote profunde punctato, lateribus profunde et crebre punctatis, interspatiis elevato-reticulatis; elytris purpureis, thorace latioribus, convexis, infra basin leviter excavatis; striis integris, minus fortiter punctatis, obsolete sulcatis, interspatiis fere planis; femoribus incrassatis, muticis.

Long. $1\frac{2}{3}$ lin.

Hab. Sumatra.

Head short, coarsely and distantly punctured, the punctures scattered irregularly over the surface; anterior border of epistome concave-emarginate, angles of the notch produced each into a subacute tooth; encarpæ separated from the front by a single row of deep punctures; labrum nigro-piceous; jaws black; antennæ half the length of the body, four lower joints fulvous, stained with piceous above. Thorax twice as broad as long; sides rounded, converging from base to apex, angles tuberculate; surface impressed just behind the anterior border with a shallow transverse groove, disk deeply and coarsely but subremotely punctured; sides closely and deeply punctured, interspaces on the sides elevate-reticulate. Elytra broader than the thorax, subquadrate-oblong, apex broadly rounded, lateral margin narrowly dilated; convex, slightly excavated below the basilar space, longitudinally sulcate within the humeral callus, the latter thickened; striæ distinctly but not coarsely punctured, entire, very faintly sulcate, punctures placed somewhat irregularly on the striæ; interspaces nearly plane, obsoletely wrinkled.

49. *Nodostoma castaneum*, n. sp.

Breviter ovatum, valde convexum, castaneum, nitidum; antennis nigris, basi et apice obscure fulvis; thorace lateribus rotundatis, antice paullo convergentibus, tenuissime remote punctato; elytris thorace latioribus, subquadrato-oblongis, convexis, margine laterali paullo dilatato, infra basin excavatis, intra callum humerale sulcatis, hoc incrassato; striis integris,

tenuiter punctatis, punctis infra basin magnis, profundius impressis, interspatiis planis; femoribus modice incrassatis, muticis.

Long. 2 lin.

Hab. Celebes.

Head short, finely and remotely punctured; epistome not separated from the front, its lower half coarsely and closely punctured, anterior border subangulate-emarginate; jaws black; encarpæ separated from the front by a punctured groove; antennæ filiform, more than half the length of the body, five lower joints obscure fulvous, two outer joints yellowish-white. Thorax twice as broad as long; sides rounded, converging in front, all the angles tuberculate; upper surface with its anterior border bounded within by a transverse groove, very minutely and distantly punctured. Scutellum semiovate, its apex very obtuse. Elytra broader than the thorax, similar in form to those of *N. imperiale*, finely punctured, the punctures on the subbasilar depression, and along the suture in front, larger and more deeply impressed; interspaces plane.

50. *Nodostoma anthracinum*, n. sp.

Breviter oblongum, ovatum, convexum, cæruleo-nigrum, nitidum; thorace lateribus rotundatis, a basi ad apicem convergentibus, profunde punctato, punctis in disci medio hic illic sparse congregatis, ad latera crebre dispositis, interspatiis elevato-reticulatis; elytris thorace latioribus, convexis, margine laterali paullo dilatatis, infra basin late excavatis; striis integris, sat fortiter punctatis, punctis striarum intermediarum minus fortiter impressis; interspatiis prope suturam obsolete convexiusculis, disco intermedio planis, prope marginem exteriorem costatis; femoribus incrassatis, muticis; tarsis fulvis.

Long. 1½ lin.

Hab. Singapore.

Head short, coarsely punctured; anterior border of epistome concave-emarginate; labrum black; antennæ filiform, black, fulvous at the base; encarpæ thickened, separated from the front by a shallow groove. Thorax nearly twice as broad at the base as long; sides rounded and converging from base to apex; above transversely convex, sides deflexed in front, deeply punctured, punctures distant on the middle disk, larger and crowded on the sides, interspaces on the sides elevate-reticulate. Scutellum

scarcely longer than broad, sides parallel, apical angle very obtuse. Elytra broader than the thorax, subquadrate-ovate, lateral margin narrowly dilated; convex, slightly excavated below the basilar space; striæ strongly punctured, slightly sulcate on the disk, deeply sulcate near the lateral margin, interspaces very slightly convex, those on the outer disk broadly costate.

51. *Nodostoma nigrum*, n. sp.

Oblongum, convexum, nigrum, nitidum; antennis basi fulvis; thorace subconico, subremote punctato; elytris convexis, thorace latioribus, margine laterali paullo dilatato, infra basin leviter sed late excavatis, callo humerali incrassato, spatio basilari paullo elevato; striis integris, subfortiter punctatis, interspatiis leviter convexiusculis; femoribus modice incrassatis, muticis.

Long. $1\frac{2}{3}$ lin.

Hab. Malacca.

Head short, deeply buried in the thorax, coarsely and irregularly punctured; anterior border of epistome angulate-emarginate; labrum black; eyes large, not prominent, their inner edge very slightly sinuate; antennæ filiform, rather more than half the length of the body, four lower joints fulvous, two basal joints stained above with piceous; third joint equal in length to the two preceding united. Thorax scarcely broader than long, subconic; sides straight, converging from base to apex; above subcylindrical, anterior margin bordered within by a transverse groove; surface deeply and subremotely punctured. Scutellum semiovate, its apex rounded. Elytra broader than the thorax, subquadrate-oblong, lateral border narrowly dilated; convex, faintly excavated below the basilar space; striæ slightly but distinctly sulcate, somewhat finely punctured; interspaces slightly convex.

52. *Nodostoma nigritum*, n. sp.

Breviter ovatum, valde convexum, nigrum, nitidum; antennis nigro-piceis, basi fulvis; thorace lateribus rotundatis, a basi ad apicem convergentibus, disco remote, ad latera profunde et crebre punctato, interspatiis disci lævibus, ad latera elevato-reticulatis; elytris thorace latioribus, subquadrato-ovatis, postice paullo attenuatis, limbo laterali anguste dilatato, con-

vexis, infra basin leviter excavatis; striis integris, antice fortiter, postice subtenuiter punctatis; interspatiis leviter convexiusculis, ad latera subcostatis; femoribus incrassatis, muticis; tarsis piceis.

Long. $1\frac{1}{4}$ lin.

Hab. Malacca.

Head short, deeply punctured; anterior border of epistome deeply angulate-emarginate; eyes not prominent; encarpæ slightly thickened, not distinctly separated from the front; labrum black; antennæ filiform, nearly equal to the body in length. Thorax twice as broad as long; sides rounded and moderately converging from base to apex; upper surface deeply and coarsely punctured, punctures subremote on the disk, crowded on the sides, interspaces on the sides elevate-reticulate. Scutellum subpentagonal. Elytra broader than the thorax, broadly oblong-ovate, convex, outer border very narrowly dilated; slightly excavated below the basilar space; striæ strongly punctured, slightly sulcate, interspaces obsoletely convex.

53. *Nodostoma purpureipenne*, n. sp.

Breviter oblongum, valde convexum, nigrum, nitidum, supra viridi-metallicum; thorace lateribus rotundatis, a basi ad apicem convergentibus, dorso sat fortiter remote punctato, punctis hic illic irregulariter congregatis; elytris læte purpureis, limbo inflexo viridi-metallico, thorace latioribus, convexis, margine laterali paullo dilatato, infra basin leviter sed late excavatis; striis integris, sat fortiter punctatis, interspatiis planis: femoribus incrassatis, muticis.

Long. $1\frac{1}{3}$ lin.

Hab. Malacca (Mount Ophir).

Head short, smooth, impressed very distantly with a few fine but distinct punctures; epistome much longer than broad, sides nearly parallel, scarcely converging backwards; anterior border angulate-emarginate, angles of the notch produced, acute; encarpæ separated from the front by a shallow groove; labrum and jaws black; antennæ filiform, black, four lower joints obscure fulvous. Thorax twice as broad as long; sides rounded, converging from the base to the apex, nearly straight and parallel at the base, all the angles thickened; surface deeply but remotely punctured, the punctures scattered here and there over the whole disk; just behind the anterior border is a shallow transverse

groove. Scutellum subpentagonal, sides converging backwards. Elytra broader than the thorax, their apex broadly rounded, convex, lateral border narrowly dilated; excavated below the basilar space, sulcate within the humeral callus, the latter thickened; striæ rather finely punctured, very feebly sulcate, interspaces obsoletely convex, striæ on the inner disk and on the basilar space more finely punctured; sutural and basal margins narrowly edged with metallic-green.

54. Nodostoma Amboinense, n. sp.

Oblongum, convexum, nigrum, nitidum, supra obscure viridi-æneum; pedibus obscure piceis; thorace remote punctato, lateribus rotundatis, paullo ante basin ad apicem convergentibus; elytris thorace latioribus, late oblongis, infra basin et intra callum humerale excavatis; striis sat fortiter punctatis, punctis apicem versus minus fortiter impressis, interspatiis planis, ad latera elevatis; femoribus incrassatis, muticis.

Long. $1\frac{1}{2}$ lin.

Hab. Amboina.

Head slightly convex, rather distantly punctured, middle of the front impressed with a short longitudinal groove; anterior border of epistome angulate-emarginate, angles of the notch pale piceous; labrum and base of antennæ fulvous, the latter filiform; encarpæ separated from the front by a distinct sutural groove. Thorax twice as broad as long; sides rounded, nearly parallel at the extreme base, then quickly converging to the apex; surface remotely punctured; anterior margin bordered within by a deep transverse groove. Elytra broader than the thorax, broadly oblong, lateral border narrowly dilated; excavated below the basilar space, sulcate within the humeral callus, the latter thickened, basilar space also slightly thickened; striæ entire, strongly punctured and sulcate on the anterior disk, more deeply sulcate on the sides, the interspaces between the lateral striæ thickened; basilar space finely punctured.

55. Nodostoma pallidipes, n. sp.

Oblongum, convexum, nigrum, nitidum, supra viridi-cyaneum; antennis basi pedibusque fulvis; thorace lateribus rotundatis, tenuiter remote punctato; elytris thorace latioribus,

infra basin leviter excavatis, fortiter punctato-striatis, striis pone medium minus fortiter punctatis, interspatiis fere planis; femoribus modice incrassatis, muticis.

Long. 1 lin.

Hab. New Guinea (Dorey).

Front very finely and remotely punctured, its middle portion impressed with a short longitudinal groove; epistome coarsely punctured, its anterior border subangulate-emarginate, angles of the notch slightly produced, obtuse; jaws piceous, their apex black; antennæ three-fourths the length of the body, filiform, six lower joints pale fulvous, the rest black; encarpæ separated from the front by a distinct groove. Thorax half as broad again as long; sides rounded, converging in front, nearly straight and parallel behind the middle; above transversely convex, sides obliquely deflexed in front, surface remotely impressed with shallow punctures. Scutellum semiovate. Elytra broader than the thorax, faintly excavated below the basilar space; striæ strongly punctured, more finely punctured below the middle, interspaces nearly plane, very faintly convex on the anterior disk and along the suture.

56. *Nodostoma viridiornatum*, n. sp.

Oblongum, convexum, nigrum, nitidum; antennis basi piceis; femoribus extrorsum, scutello thoraceque viridi-æneis; hoc lateribus rotundatis, disco remote, lateribus magis crebre punctato; elytris thorace latioribus, breviter oblongis, margine laterali paullo dilatato, infra basin excavatis; striis integris, tenniter punctatis, infra humeros profundius punctatis, interspatiis planis; lineâ suturali, margine laterali plagâque humerali viridi-metallicis; femoribus modice incrassatis, muticis.

Var. A. Thorace nigro, basi viridi-metallico.

Long. $1\frac{1}{3}$ lin.

Hab. Batchian.

Head slightly prominent, finely but distinctly punctured, interspaces on either side the vertex obliquely elevate-strigose; anterior border of epistome angulate-emarginate, the border itself, together with the slightly-raised encarpæ, metallic-green; antennæ nearly two-thirds the length of the body, filiform, four lower joints obscure fulvous, stained above with piceous. Thorax half as broad again as long; sides nearly straight and parallel at the base, rounded and converging from behind the middle to the apex;

anterior border bounded within by a deep transverse groove; surface of disk remotely punctured, punctures more crowded and somewhat coarser on the sides. Scutellum thickened, subpentagonal. Elytra much broader than the thorax, broadly oblong, convex, lateral border narrowly dilated, excavated below the basilar space, the latter slightly thickened; longitudinally sulcate within the humeral callus, the callus itself prominent; striæ entire, finely punctured, impressed with larger deeper punctures on the anterior disk below the shoulders; interspaces plane.

Very similar in colour to *N. evanescens* (*ante*, p. 243), but the thorax is much less strongly punctured, and entirely metallic-green.

57. *Nodostoma costatum*, Baly.

(*N. costata*), Desc. New Gen. and Spec. Phyt. p. 12.

Breviter oblongum, convexum, subtus piceum; abdomine pedibusque fulvis; supra fulvum, antennis extrorsum nigris; thoracis plagis duabus, elytrorumque margine exteriori, suturâ vittisque interruptis disci piceis; thorace subremote punctato, lateribus pone medium angulatis; elytris thorace latioribus, infra basin transversim excavatis, striis integris, sulcatis, fortiter punctatis, interspatiis valde et late costatis; femoribus subtus dente brevi armatis.

Long. 2 lin.

Hab. Borneo (Sarawak).

Head moderately exserted, front swollen, finely and distantly punctured, its lower part impressed with a deep longitudinal groove, more coarsely and closely punctured; epistome wedge-shaped, its surface coarsely punctured, its anterior border slightly concave; antennæ slender, filiform, nearly equal to the body in length, four lower joints fulvous, the rest black; eyes prominent, their inner border distinctly sinuate, their upper edge bordered by a deep groove, which is prolonged obliquely downwards and inwards along the upper edge of the epistome; jaws black. Thorax twice as broad as long; sides obtusely angled behind the middle, thence obliquely converging to the apex; anterior angles tuberculate, hinder armed with an obtuse tooth; above transversely convex, anterior margin bordered within by a deep transverse groove; surface subremotely impressed with large deep punctures. Scutellum trigonate, its apex rounded. Elytra broader than the thorax, broadly oblong, deeply excavated below the basilar space; humeral callus prominent; striæ deeply sulcate,

somewhat strongly punctured, interspaces thickened, broadly costate.

58. *Nodostoma frontale*, n. sp.

Late oblongum, convexum, nigrum, supra purpureum; capite piceo-fulvo, facie inferiori piceâ, antennis extrorsum mandibulisque nigris; thorace remote punctato, lateribus ante basin angulatis, hinc ad apicem oblique convergentibus; elytris thorace vix latioribus, subquadrato-ovatis, margine laterali paullo dilatato, convexis, infra basin excavatis, intra callum humerale sulcatis, striis integris, antice sat fortiter, pone medium magis tenuiter punctatis, interspatiis obsolete convexiusculis; femoribus incrassatis, subtus dente brevi armatis.

Long. 2 lin.

Hab. Malacca.

Head slightly prominent, coarsely but not closely punctured; epistome forming a single piece with the front, its anterior border angulate-emarginate, angles of the notch produced, acute; encarpæ not separated from the front; labrum fulvous; eyes subprominent; antennæ rather more than half the length of the body, filiform, four basal joints fulvous, stained above with piceous. Thorax more than twice as broad as long; sides dilated and obtusely angled just before the base, thence obliquely converging to the apex; above transversely convex, sides obliquely deflexed in front; anterior border abruptly constricted; surface finely and remotely punctured. Scutellum subpentagonal. Elytra slightly broader than the thorax, convex, excavated below the basilar space, sulcate within the humeral callus, the latter thickened; basilar space also raised; striæ entire, less deeply punctured towards the apex; interspaces slightly convex.

59. *Nodostoma diversipes*, n. sp.

Oblongum, convexum, nigrum, nitidum, femoribus nigro-piceis, tibiis, tarsis antennisque pallide fulvis; supra nigro-æneum; thorace lateribus rotundatis, profunde punctato; elytris thorace latioribus, infra basin excavatis, striis fortiter punctatis, sulcatis, punctis apicem versus minus fortiter impressis, interspatiis elevatis.

Long. $\frac{3}{4}$--1 lin.

Hab. Mysol.

Head prominent, deeply but not closely punctured; anterior margin slightly subangulate-emarginate; labrum and antennæ fulvous, the latter filiform. Thorax half as broad again as long; sides rounded, converging in front, surface deeply punctured, sides obliquely deflexed in front. Elytra broader than the thorax, parallel, excavated below the basilar space.

II. *Elytra foveolate-striate.*

60. *Nodostoma Jansoni*, Baly.

Desc. New Gen. and Spec. Phyt. p. 13.

Elongatum, subcylindricum, viridi-metallicum, nitidum, subtus (cum antennis) nigro-piceum; antennarum basi, tibiis tarsisque pallide rufo-piceis; thorace crebre foveolato-punctato; elytris thorace vix latioribus, infra basin non excavatis, profunde foveolato-striatis, interspatiis subcostatis; femoribus subtus dente brevi armatis.

Long. 2 lin.

Hab. Singapore.

Head prominent, coarsely and deeply punctured, interspaces on either side the vertex indistinctly reticulate-strigose, those on the lower part of the front obsoletely transversely wrinkled; middle of the front impressed with a short longitudinal groove; epistome broader than long, its anterior border slightly concave-emarginate; labrum fulvous; jaws black; antennæ filiform; eyes prominent, inner border sinuate. Thorax half as broad again as long; sides rounded, converging in front, very faintly angled behind the middle; upper surface closely covered with large round deeply-impressed punctures; anterior border bounded within by a deep transverse groove. Scutellum semiovate. Elytra rather broader than the thorax, parallel, not excavated below the basilar space; closely covered with large round deeply-impressed foveæ arranged in longitudinal rows; interspaces between the rows thickened, subcostate. Legs subelongate.

Genus Stethotes, n. g.

Corpus ovatum, valde convexum. *Caput* modice exsertum; *vertice* plerumque tumido, utrinque super oculum sæpe

excavato; *antennis* filiformibus, apicem versus perparum incrassatis; *oculis* prominentibus. *Thorax* elytris angustior, conicus aut subconicus, dorso subcylindricus, margine antico utrinque sinuato, margine laterali fere obsoleto, margine inflexo fere perpendiculari. *Elytra* thorace latiora, postice plus minusve attenuata, convexa, punctato-striata. *Pedes* subelongati, robusti; *femoribus* incrassatis, basi attenuatis, subtus dente acuto armatis; *tibiis* quatuor posticis extus ante apicem emarginatis; *unguiculis* bifidis. *Episterna* antica trigonata vel cuneiformia, sæpe in medio longitudinaliter elevata; sulcis inter episterna et prosternum obsoletis.

The present genus differs from *Rhyparida* and *Nodostoma* in the form of the thorax; in *Stethotes* the lateral border of the thorax is nearly obsolete, being indicated only by a raised sutural line; the side beneath, or *ora*, is nearly perpendicular, and forms, conjointly with the anterior episternum, a more or less distinct longitudinal ridge, the edge of which runs perpendicularly downwards.

A. *Head deeply excavated on either side above the eye.*

1. *Stethotes elegantula*, Baly. (Pl. V.* fig. 2.)

Pyropida elegantula, Baly, Desc. New Gen. and Spec. Phyt. p. 15.

Ovata, postice attenuata, valde convexa, nigro-ænea, nitidissima; antennis nigris, basi fulvis; vertice tumido, crebre impresso-strigoso; thorace longitudine latitudini æquali, sat profunde punctato; elytris cæruleo-nigris, thorace multo latioribus, a basi apicem versus angustatis, humeris prominulis, striis sat fortiter punctatis; episterno antico in medio non elevato, introrsum oblique spectante.

Long. 3 lin.

Hab. Amboina.

Vertex swollen, broadly excavated on either side above the eye, closely punctured and impresso-strigose; lower portion of the front concave; epistome not longer than broad, sides straight, obliquely converging backwards, anterior border slightly concave-emarginate; labrum and three basal joints of the antennæ fulvous. Thorax one-fourth as broad again at the base as long;

sides nearly straight, obliquely converging from base to apex; anterior angles acute, anterior margin deeply sinuate on either side; subconic, sides strongly deflexed in front, surface finely and subremotely punctured. Elytra much broader at the base than the thorax, converging backwards, apex rounded; humeral callus prominent; surface regularly punctate-striate, interspaces plane; on the outer margin the striæ are sulcate, and the interspaces thickened.

2. *Stethotes nigrocærulea*, Baly.

Pyropida nigrocærulea, Baly, Desc. New Gen. and Spec. Phyt. p. 16.

Ovata, postice attenuata, valde convexa, nigro-cærulea, nitida, antennis nigris, basi fulvis; thorace conico, subremote punctato; elytris fortiter punctato-striatis; pedibus modice elongatis.

Long. $2\frac{3}{4}$ lin.

Hab. Ceram.

Smaller and rather narrower than the last species; thorax rather broader; in all other characters precisely similar. Possibly only a local variety of *S. elegantula*.

3. *Stethotes apicicornis*, n. sp.

Ovata, valde convexa, nigra, nitida, tibiis tarsisque rufo-piceis, supra læte purpurea; antennis subfiliformibus, fulvis, articulis intermediis nigris, tribus ultimis albis; thorace latitudine paullo latiori, subconico, tenuiter remote punctato; elytris late oblongo-ovatis, distincte sed tenuiter punctato-striatis; episternis anticis non longitudinaliter elevatis.

Long. $1\frac{2}{3}$ lin.

Hab. Aru Islands.

Head blueish-green, middle portion broadly excavated on either side above the eye, slightly swollen, distinctly but not very closely punctured; antennæ rather more than half the length of the body, slightly dilated and compressed towards the apex, five lower joints fulvous, the sixth to the eighth black, three upper joints white. Thorax slightly broader at the base than long, subconic; surface very remotely and finely punctured. Elytra broader than the thorax, scarcely narrowed posteriorly, their apex broadly rounded, surface finely but distinctly punctate-striate.

4. *Stethotes lateralis*, Baly.

Pyropida lateralis, Baly, Desc. New Gen. and Spec. Phyt. p. 15.

Anguste ovata, valde convexa, postice attenuata, nigra, nitida, antennis basi fulvis; thorace conico, fortiter punctato; elytris postice attenuatis, fortiter punctato-striatis; episternis anticis longitudinaliter elevatis.

Long. $1\frac{1}{2}$ lin.

Hab. New Guinea (Aru Islands), Borneo.

Upper portion of the front not swollen, broadly excavated on either side above the eye, middle portion obliquely impresso-strigose on either side, the strigæ closely punctured; lower portion, together with the epistome, deeply but not closely punctured; labrum and four lower joints of antennæ fulvous. Thorax about a fourth as broad again as long; sides nearly straight, converging from base to apex; anterior border deeply sinuate on either side; above subcylindrical, rather finely punctured on the disk, more deeply and coarsely punctured on the sides. Scutellum much longer than broad, lanceolate, its apex acute. Elytra much broader than the thorax, narrowed from the base towards the apex; humeral callus prominent; surface deeply punctate-striate.

5. *Stethotes consimilis*, n. sp.

Anguste ovata vel ovata, valde convexa, cæruleo-nigra, nitida, antennis fulvis, extrorsum piceis; thorace conico, tenuiter punctato; elytris postice attenuatis, fortiter punctato-striatis; episternis anticis longitudinaliter elevatis.

Long. $1\frac{1}{2}$—$1\frac{2}{3}$ lin.

Hab. Batchian, Bouru.

Very similar in size and punctuation to the last species; vertex tinctly swollen, more closely impresso-strigose, its lower portion more sparingly punctured; antennæ piceous, their lower half fulvous. Thorax more finely and distantly punctured.

6. *Stethotes longicollis*, n. sp.

Ovata, valde convexa, nigra, nitida, antennis piceis, basi obscure fulvis; thorace latitudine vix longiori, tenuiter remote punctato; elytris postice attenuatis, fortiter punctato-striatis;

pedibus subelongatis, cæruleo-nigris; episternis anticis longitudinaliter elevatis.

Long. $1\frac{1}{2}$ lin.

Hab. Java.

Head similarly punctured to *S. consimilis;* upper portion of the front rather less swollen, its surface more coarsely strigose; epistome rather more closely punctured. Thorax scarcely longer than broad, conic, finely and remotely punctured. Elytra half as long again as the thorax, strongly punctate-striate. Legs longer than in any of the allied species.

This species may be known from its congeners by the form of the elytra, which are shorter in relation to the thorax than in any other species.

B. *Head not excavated above the eyes; upper and inner border of the eyes bounded by a sulcate groove.*

7. *Stethotes tarsata,* n. sp.

Elongato-ovata, valde convexa, nigra, nitida, tarsis antennisque piceis, his basi fulvis; thorace conico, disci medio fere impunctato, ad latera subcrebre punctato; elytris thorace latioribus, postice attenuatis, fortiter punctato-striatis; episternis anticis longitudinaliter elevatis.

Long. $1\frac{1}{2}$ lin.

Hab. New Guinea (Dorey).

Vertex swollen, obliquely strigose on either side, strigæ nitidous, impunctate; epistome wedge-shaped, deeply punctured; encarpæ smooth, impunctate; upper and inner border of the eye bounded by a deep groove, which at its lower extremity runs downwards and inwards along the upper border of the encarpa; labrum fulvous; antennæ dark piceous, three lower joints fulvous. Thorax scarcely broader at the base than long, conic, the middle of the disk smooth, nearly impunctate, sides rather closely punctured. Elytra much broader than the thorax, tapering from the base towards the apex; surface strongly punctate-striate.

8. *Stethotes nigritula,* n. sp.

Ovata, valde convexa, postice attenuata, nigra, nitida; antennis piceis, basi fulvis; pedibus subelongatis, cæruleo-nigris; tho-

race remote sat fortiter punctato; elytris postice paullo attenuatis, sat profunde punctato-striatis; episternis anticis in medio non elevatis.

Long. 1 lin.

Hab. New Guinea (Dorey).

Vertex granulose, opake, lower portion of the front nitidous, distantly punctured; eye bordered on its upper and inner margin by a deeply sulcate groove, which extends downwards and inwards along the upper edge of the encarpa; four lower joints of antennæ fulvous. Thorax at the base scarcely broader than long, conic; sides obliquely converging from base to apex, very slightly rounded; surface somewhat finely and distantly punctured on the disk, deeply impressed with round punctures on the sides. Elytra much broader than the thorax, twice its length, scarcely narrowed towards the apex, convex, deeply punctate-striate.

9. *Siethotes atra*, n. sp.

Ovata, valde convexa, nigra, nitida, antennis piceis, basi fulvis; thorace transverso, subconico, sat remote fortiter punctato; elytris thorace latioribus, postice attenuatis, sat profunde punctato-striatis; pedibus modice elongatis, nigro-purpureis; episternis anticis in medio non elevatis.

Long. 1 lin.

Hab. New Guinea (Dorey).

Head distinctly but not very closely punctured, the punctures distantly placed on the epistome and lower portion of the front, the extreme upper part of the vertex impresso-strigose; epistome forming a single piece with the front; inner and upper margin of the eye bordered by a deep groove, which at its lower end runs obliquely downwards and inwards for a short distance along the upper edge of the encarpa. Thorax distinctly broader than long, subconic; sides slightly rounded, obliquely converging from behind the middle to the apex; surface coarsely but remotely punctured. Elytra broader than the thorax, twice its length, tapering towards the apex, convex, striæ deeply punctured, puncturing rather finer towards the apex.

Genus Nodina, Motsch.

Etudes Ent. vii. p. 108.

Corpus breviter ovatum, valde convexum. *Caput* breve, thorace profunde immersum; *antennis* filiformibus, dimidio corporis

paullo longioribus, articulo primo incrassato, secundo paullo incrassato; *oculis* non prominentibus. *Thorax* transversus, basi elytris fere æquilatus, lateribus rotundato-angustatis, haud angulatis. *Elytra* convexa, infra basin non excavata, regulariter punctato-striata. *Pedes* mediocres; *femoribus* muticis; *tibiis* quatuor posticis extus ante apicem emarginatis; *unguiculis* appendiculatis. *Episterna* antica trigonata, sulcis inter episterna et prosternum obsoletis.

Nodina is very closely related to *Nodostoma;* it agrees in nearly all its structural characters, but differs so completely in habit that it is impossible to merge the two genera into one.

1. *Nodina gigas*, n. sp.

Late ovata, convexa, nigra, nitida, antennis basi fulvis; thorace tenuiter sat remote punctato; elytris sat fortiter punctato-striatis.

Long. 2 lin.

Hab. Borneo.

Head flat, distantly punctured; the extreme upper part of the vertex coarsely impresso-strigose; antennæ robust, half the length of the body, four lower joints fulvous, stained above with piceous. Thorax more than twice as broad at the base as long; sides quickly rounded and converging from base to apex; above transversely convex, sides obliquely deflexed in front; surface distantly impressed with round shallow punctures. Elytra slightly narrowed towards the apex, rather strongly but not coarsely punctate-striate.

This species may be at once known by its large size and entirely black colour.

2. *Nodina fulvipes*, n. sp.

Breviter ovata, postice paullo attenuata, valde convexa, nitida, subtus picea, pedibus rufo-fulvis, supra cupreo-ænea; antennis basi fulvis, extrorsum pallide piceis; thorace lateribus rotundatis, a basi ad apicem convergentibus, dorso transversim convexo, lateribus antice oblique deflexis, distincte subremote punctato; elytris punctato-striatis.

Long. 1—1¼ lin.

Hab. Borneo.

Front remotely punctured; anterior border of epistome angu-

late-emarginate, angles of the notch produced, acute; jaws black; antennæ half the length of the body, robust, four or five lower joints fulvous, the rest piceous. Thorax more than twice as broad as long; sides rounded, converging from base to apex, more quickly converging before the middle; upper surface transversely convex at the base, sides obliquely deflexed from behind the middle to the apex; the disk distinctly but subremotely punctured, the sides rather more closely punctured. Elytra not broader than the base of the thorax, slightly narrowed towards the apex, convex, distinctly punctate-striate, the punctures of nearly equal size to the apex; striæ on the outer disk scarcely more coarsely punctured than the others, interspaces plane. Notch on the hinder pair of tibiæ nearly obsolete.

3. *Nodina separata*, n. sp.

Ovata, valde convexa, subtus nigro-picea, nitida, pedibus rufo-piceis, supra cæruleo-ænea, antennis fulvis, extrorsum nigris; thorace lateribus a basi ad medium fere rectis, parallelis, hinc ad apicem rotundato-convergentibus, dorso transversim convexo, lateribus ante medium oblique deflexis, distincte punctato; elytris ad apicem non angustatis, subfortiter punctato-striatis, punctis ad apicem distinctis.

Long. 1 lin.

Hab. Borneo (Sarawak).

Rather more parallel and slightly less convex than the preceding species; front slightly more convex, the extreme vertex more closely punctured; sides of the thorax not converging from the base, but straight and parallel on their basal half; upper surface rather more strongly and closely punctured, sides less broadly deflexed in front; hinder pair of tibiæ distinctly notched at the apex.

4. *Nodina minuta*, n. sp.

Ovata, valde convexa, piceo-cuprea, supra cuprea, nitida, antennis pedibusque fulvis; thorace lateribus rotundatis, a basi ad apicem convergentibus, dorso subfortiter punctato, lateribus pone medium ad apicem oblique deflexis; elytris subfortiter punctato-striatis, striis ad latera sulcatis, interspatiis elevatis.

Long. 1 lin.

Hab. Sulu Islands.

Face distantly punctured, upper portion of the front slightly

convex; lower margin of the epistome subangulate-emarginate, angles of the notch subacute; labrum and antennæ fulvous. Thorax more than twice as broad as long; sides rounded and converging from base to apex, more quickly converging before the middle; above transversely convex at the base, sides obliquely converging from just behind the middle to the apex; surface rather strongly but not closely punctured. Elytra rather strongly punctate-striate; striæ near the outer border more coarsely punctured, sulcate, their interspaces thickened.

5. *Nodina Ceramensis*, n. sp.

Breviter ovata, valde convexa, subtus nigra, pedibus fulvo-piceis, supra cupreo-ænea, nitida, antennis nigro-piceis, basi fulvis; thorace lateribus basi fere rectis, parallelis, a medio ad apicem rotundato-convergentibus, dorso subremote punctato, lateribus antice oblique deflexis; elytris subfortiter punctato-striatis, striis ad latera magis fortiter impressis, apicem versus fere obsoletis.

Long. 1 lin.

Hab. Ceram.

Broadly ovate, rather more parallel than *N. fulvipes;* the thorax similar in form to that of *N. separata*, but the body shorter than in that insect.

Genus Dermorhytis, Baly.

Journ. of Entom. i. p. 282.

Corpus subelongatum aut elongatum, subcylindricum. *Caput* in thorace usque ad oculos insertum; *facie* perpendiculari; *epistomate* male definito; *antennis* gracilibus, subfiliformibus, articulis secundo et tertio longitudine fere æqualibus; *labro* transverso; *mandibulis* apice dentatis; *labio* subconico, *mento* antice concavo, *ligulâ* basi obtuse angulatâ; *palparum* articulo ultimo ovato; *oculis* prominulis, intus vix emarginatis. *Thorax* subcylindricus, lateribus marginatis, sæpe angulatis. *Elytra* oblonga, parallela, crebre punctata, interstitiis plerumque in strigas transversas elevatis. *Pedes* modice robusti, simplices; *tarsorum* articulo basali duobus sequentibus breviori; *unguiculis* appendiculatis. *Prosternum* subelongatum, lateribus concavis, in medio dentatis; *episterno* antico cuneiformi, apice late truncato, angulo exteriori ad angulum anticum

thoracis non producto; sulcis inter prosternum et episterna obsoletis.

1. *Dermorhytis ænea*, Wiedemann. (Pl. V.* fig. 7.)

Cryptocephalus æneus, Wied. in Germ. Mag. d. Ent. iv. p. 182.

Elongata, subcylindrica, cupreo-ænea, nitida, antennis extrorsum nigris; thorace profunde et crebre punctato; elytris thorace latioribus, a basi apicem versus subparallelis, apice attenuatis, subcrebre fortiter punctatis, interspatiis transversim elevato-strigosis, apicem versus prope suturam elevato-vittatis.

Long. $3\frac{1}{2}$—4 lin.

Hab. Java.

Head coarsely rugose-punctate; labrum rufo-fulvous; anterior border of epistome angulate-emarginate; five outer joints of antennæ slightly dilated, black, six lower joints fulvous. Thorax one third as broad again as long; sides rounded, scarcely converging in front, slightly sinuate in the middle, anterior angles produced, their extreme apex obtuse; surface closely covered with deep round punctures. Scutellum rather broader than long, sides diverging backwards, apex broadly rounded, basal half closely punctured. Elytra broader than the thorax, slightly tapering from the base backwards; surface coarsely punctured, interspaces forming irregular raised transverse strigæ which extend across the inner disk to the suture; towards the apex near the suture are three or four raised longitudinal vittæ.

The elytra are rather broader, less parallel, and more coarsely punctured than in *D. elegans* (*post*, p. 264).

2. *Dermorhytis Philippinensis*, n. sp.

Elongata, subcylindrica, viridi-cærulea, nitida, supra viridi-ænea; thorace tenuiter subremote punctato; elytris thorace latioribus, disco interiori tenuiter punctatis, punctis in striis bifariis confuse dispositis, disco exteriori magis fortiter inordinatim punctatis, interspatiis elevatis, irregulariter transversim strigosis.

Long. 4 lin.

Hab. Philippine Islands.

Head finely but not closely punctured, front slightly swollen, its lower end just above the apex of the epistome furnished with a broad ill-defined obtuse tubercle; epistome more closely and coarsely punctured than the front, its sides obliquely rounded and

converging to the apex; anterior border angulate-emarginate; antennæ, labrum and jaws black. Thorax about half as broad again as long; sides slightly rounded, subparallel at the base, slightly converging in front; anterior angles produced, armed with an obtuse tooth, hinder angles slightly produced, acute; upper surface transversely convex, almost subcylindrical, finely and distinctly but subremotely punctured. Scutellum as broad as long. Elytra broader than the thorax, nearly parallel, scarcely narrowed towards the apex; surface finely punctured on the inner disk; punctures, after leaving the extreme base, arranged somewhat irregularly in double rows, interspaces plane; puncturing on the outer disk stronger and irregular; interspaces, the extreme lateral surface and apex excepted, covered with raised coarse irregular transverse strigæ.

3. *Dermorhytis elegans*, Baly.

Desc. New Gen. and Spec. Phyt. p. 8.

Elongata, subcylindrica, viridi- aut purpureo-metallica, nitida; antennis extrorsum nigro-purpureis, articulis quinque ultimis compressis, modice dilatatis; thorace subcrebre punctato; elytris disco exteriori ante apicem longitudinaliter elevatis, subcrebre punctatis, punctis indistincte subseriatim dispositis, interstitiis transversim elevato-strigosis.

Long. 4 lin.

Hab. Malay Peninsula.

Head broad, front slightly convex, rather more finely punctured than the epistome, the latter broader than long, closely covered with large round punctures, its anterior border bilobate. Thorax broader than long; sides very slightly rounded, nearly parallel, anterior angles produced, acute; above subcylindrical, somewhat closely covered with large ovate punctures. Scutellum rather broader than long, sides diverging backwards, apex broadly rounded. Elytra broader than the thorax, parallel, slightly attenuated towards their apex, subcylindrical, coarsely punctured, the punctures indistinctly arranged in irregular striæ, interspaces plane on the inner third of the disk, raised on the outer two-thirds, and forming coarse irregular transverse strigæ.

4. *Dermorhytis apicalis*, n. sp.

Elongata, subcylindrica, nigra, nitida, supra cuprea aut viridi-cyanea; antennis nigris, articulis duobus ultimis albidis;

thorace sat fortiter subcrebre punctato, utrinque oblique excavato; elytris thorace latioribus, apicem versus paullo attenuatis, fortiter substriatim punctatis, interspatiis transversim elevato-strigosis, apicem versus prope suturam longitudinaliter costatis.

Var. A. Antennis totis nigris.

Long. $2\frac{1}{2}$ lin.

Hab. Borneo.

Head coarsely punctured, the upper portion slightly swollen; the lower end of the front furnished with an obtuse slightly-elevated tubercle, the lower border of the epistome very slightly angulate-emarginate; labrum, jaws and antennæ black, five upper joints of the latter less dilated than in any of the former species, last two joints sometimes dirty-white. Thorax one-third as broad again at the base as long; sides slightly rounded, obliquely converging from the base to the apex; anterior angles produced into a slightly oblique subacute tooth, hinder angles acute; surface transversely convex, sides obliquely deflexed in front, obliquely excavated on either side the disk, coarsely and somewhat closely punctured, interspaces on the sides thickened and irregularly reticulate. Scutellum scarcely broader than long, semiovate. Elytra broader than the thorax, subparallel, tapering towards the apex, strongly punctured, punctures on the inner disk and near the apex arranged irregularly in longitudinal striæ; interspaces thickened and forming irregular transverse strigæ, and on the inner disk near its apex forming longitudinal costæ.

5. *Dermorhytis piceipes*, n. sp.

Elongata, subcylindrica, viridi-ænea, nitida, pedibus piceo-fulvis, tarsis antennisque nigris, his basi fulvis; thorace sat fortiter crebre punctato, lateribus leviter rotundatis, in medio obsolete emarginatis; elytris sat fortiter punctatis, punctis prope suturam striatim dispositis, interspatiis (iis infra medium disco interiori exceptis) elevatis, strigas transversas elevatas formantibus, apicem versus prope suturam longitudinaliter costatis.

Long. 3 lin.

Hab. Java.

Head coarsely rugose-punctate; labrum fulvous, its middle portion stained with nigro-piceous; antennæ nearly three-fourths the length of the body, slender, seven outer joints black, five upper joints very slightly dilated. Thorax about one-third as broad again

as long; sides subparallel, slightly rounded, obsoletely emarginate in the middle, anterior angles produced, acute; surface distinctly punctured on the disk, more coarsely and closely punctured on the sides. Scutellum broadly semiovate. Elytra broader than the thorax, nearly parallel, slightly narrowed towards the apex, subcylindrical, more strongly punctured than the thorax, interspaces over the surface (the lower half of the inner disk excepted) covered with coarse strongly-raised irregularly-reticulating transverse strigæ; on the inner disk near its apex are several longitudinal costæ.

Genus Geloptera, Baly.

Journ. of Entom. i. p. 283.

Corpus oblongum, convexum. *Caput* perpendiculare, thorace ad marginem posteriorem oculorum immersum; *antennis* gracilibus, filiformibus aut subfiliformibus, articulo primo incrassato, secundo brevi, tertio illo fere duplo longiore, quarto adhuc paullo longiore; *mandibulis* apice bifidis; *mento* transverso, apice concavo; *oculis* subprominulis, subreniformibus. *Thorax* transversus, marginatus. *Scutellum* transversum, subpentagonum. *Elytra* parallela, apice rotundata, dorso sæpe tuberculata. *Pedes* modice robusti, simplices; *unguiculis* appendiculatis. *Prosternum* latitudine longius, lateribus concavis, in medio non aut vix dentatis; *episterno* antico subtrigonato, lateribus concavis, apice late truncato aut obtuso, angulo exteriori ad angulum anticum thoracis extenso; sulcis inter prosternum et episterna obsoletis. *Mesosternum* transversum, apice obsolete angulato.

1. *Geloptera eximia*, n. sp.

Elongata, valde convexa, dorso subcylindrica, æneo-viridis, nitida, antennis piceo-fulvis, extrorsum nigris; thorace subcrebre punctato; elytris tenuiter aciculato-punctatis, punctis in striis bifariis confuse dispositis, interspatiis irregulariter impresso-strigosis, infra humeros irregulariter elevato-strigosis, utrisque disco exteriori seriebus nonnullis longitudinalibus tuberculorum, apicem versus obsoletis; pedibus fusco-æneis, tarsis nigris.

Var. A. Corpore toto fusco-æneo.

Long. 4 lin.

Hab. Celebes.

Head broad, closely punctured, sparingly clothed with very

short sericeous hairs; epistome transverse; antennæ rather more than half the length of the body, four lower joints obscure fulvous, more or less stained with piceous, the rest black; labrum obscure fulvous; jaws black. Thorax nearly twice as broad as long; sides rounded, slightly concave and nearly parallel at the base, all the angles acute; surface sparingly clothed on the sides with very short silvery hairs; convex, finely punctured on the disk, more closely and coarsely punctured on the sides. Scutellum broadly semiovate. Elytra broader than the thorax, tapering towards the apex, humeral callus prominent; surface finely impressed with aciculate punctures, irregularly arranged in double longitudinal rows; interspaces finely but not closely elevate-reticulate below the humeral callus; on the outer disk are placed three or four longitudinal rows of irregular tubercles, which become gradually lost below the middle; near the apex the interspaces between the double rows of punctures are faintly thickened. Body beneath densely clothed with silvery sericeous hairs.

2. *Geloptera purpurata*, n. sp.

Elongata, valde convexa, dorso subcylindrica, viridi-metallica, pedibus rufo-piceis, femoribus apice æneis, tarsis nigris; supra purpureo-cærulea, antennis nigris, basi obscure fulvis; thorace subcrebre punctato, argenteo-sericeo; elytris sparse argenteo-sericeis, aciculato-punctatis, punctis in striis bifariis confuse dispositis; interspatiis leviter et irregulariter impresso-strigosis, disco exteriori elevato-reticulatis.

Long. 3½ lin.

Hab. Celebes.

Head very closely rugose-punctate, clothed with adpressed silvery hairs; front impressed with a longitudinal groove; epistome broader than long, pentagonal; labrum fulvous; jaws black; five or six lower joints of the antennæ obscure fulvous, more or less stained with æneous, five upper joints scarcely thickened, black; eyes not prominent. Thorax half as broad again as long; sides rounded, nearly straight and parallel at the base, all the angles armed with an acute tooth; surface convex, somewhat closely punctured, clothed with adpressed silvery hairs. Scutellum broadly semiovate, its apex metallic-green. Elytra broader than the thorax, parallel, scarcely narrowed posteriorly; upper surface sparingly clothed with very fine sericeous hairs, impressed with fine aciculate punctures which are irregularly arranged in

double longitudinal rows; interspaces finely but subremotely wrinkled; on the outer disk below the humeral callus they form coarse irregularly-raised reticulations; extreme lateral margin, together with that of the thorax, metallic-green. Body beneath closely clothed with white sericeous hairs.

Genus Aulacia, n. g.

Corpus ovatum, valde convexum, postice plerumque attenuatum. *Caput* thorace profunde insertum; *antennis* filiformibus. *Thorax* transversus, basi elytrorum latitudini æqualis, lateribus marginatis, rotundato-convergentibus. *Elytra* postice attenuata, irregulariter punctato-striata. *Pedes* mediocres; *femoribus* paullo incrassatis, muticis; *tibiis* intermediis interdum extus ad apicem emarginatis; *unguiculis* appendiculatis. *Episterna* antica sulco profundo a prosterno separata, angulo interno libero.

Aulacia bears the same relation to *Colaspoides* that *Nodina* does to *Nodostoma;* in structural characters it agrees with *Colaspoides*, in habit and size with *Nodina*.

1. *Aulacia diversa*, n. sp.

Ovata, convexa, postice attenuata, subtus (cum capite et antennis) pallide picea, nitida, supra nigro-picea; thorace sparse hic illic tenuiter punctato; elytris subfortiter punctato-striatis, striis bifariam dispositis, interspatiis ad latera costatis; tibiis intermediis extus ad apicem emarginatis.

Long. $1\frac{1}{2}$ lin.

Hab. Singapore.

Head flat, nearly impunctate; anterior border of the epistome angularly notched; jaws black; antennæ rather more than half the length of the body, pale fulvous. Thorax at the base twice as broad as long; sides rounded, very quickly converging from base to apex; surface very remotely and finely punctured. Elytra somewhat strongly punctate-striate; striæ arranged in double rows on the inner disk, single on the outer disk, the interspaces between the single rows costate.

2. *Aulacia fulviceps*, n. sp.

Ovata, postice attenuata, nigro-picea, nitida, supra piceo-ænea; capite pedibusque piceo-fulvis; thorace subcrebre punctato;

elytris punctato-striatis, striis bifariam dispositis, interspatiis planis, ad latera costatis; tibiis intermediis extus ad apicem non emarginatis.

Long. $\frac{4}{5}$ lin.

Hab. Borneo (Sarawak).

Front smooth, impressed in the middle with a longitudinal groove; upper and inner margin of the eyes bordered by a deeply sulcate groove, the lower end of which is produced obliquely inwards across the upper border of the encarpa to the epistome; the latter wedge-shaped, its anterior border nearly truncate, surface towards the upper end impressed with a few deep punctures; jaws black. Thorax somewhat closely punctured. Elytra distinctly punctate-striate, the punctures arranged in double rows on the inner two-thirds of the disk, in single on the outer third; the interspaces between the single rows costate.

3. *Aulacia femorata*, n. sp.

Ovata, convexa, nigro-picea, nitida, antennis nigris, basi fulvis; capite femoribusque rufis, tibiis tarsisque piceis; thorace subremote subtenuiter punctato; elytris distincte punctato-striatis, striis disco interiori bifariam dispositis, interspatiis ad latera costatis; tibiis intermediis extus ad apicem non emarginatis.

Long. $1\frac{1}{3}$ lin.

Hab. Borneo (Sarawak).

Vertex finely but distinctly punctured; middle of the front impressed with a longitudinal groove; epistome wedge-shaped, its anterior border nearly truncate, upper half of surface closely and coarsely punctured; upper and inner margins of the eye bordered by a deeply sulcate groove, the lower end of which runs obliquely downwards and inwards to the apex of the epistome; jaws black; antennæ black, base fulvous. Thorax finely and subremotely punctured, interspaces impressed with very minute punctures, visible only under a lens. Elytra distinctly punctate-striate; striæ arranged on the inner disk in double rows, on the outer disk in single, their interspaces costate. Legs piceous; thighs, their base and apex excepted, rufous.

4. *Aulacia bipustulata*, n. sp.

Breviter ovata, postice non attenuata, valde convexa, rufo- aut piceo-fulva, nitida, pedibus antennisque fulvis; thorace re-

motissime punctato, lateribus rotundato-convergentibus; elytris distincte punctato-striatis, striis disco interno bifariam dispositis, nigris, utrisque plagâ magnâ rotundatâ rufo-fulvâ ornatis; tibiis intermediis extus ante apicem emarginatis.

Long. $1\frac{1}{3}$ lin.

Hab. Borneo (Sarawak).

Head smooth, impunctate; epistome much longer than broad, sides nearly straight and parallel in front, obliquely converging towards the apex, anterior border very slightly emarginate; upper and inner margins of the eye bordered by a deeply sulcate groove, the lower extremity of which is produced obliquely downwards and inwards, but only extends half-way across the upper border of the encarpa; antennæ slender, nearly equal to the body in length, pale fulvous, apical joints black; jaws black. Thorax shining, impunctate. Elytra distinctly and somewhat closely punctate-striate, the striæ on the inner disk approximating in pairs. Base of thighs piceous.

Genus Colasposoma, Laporte.

Silb. Rev. Ent. i. p. 22.

Corpus oblongum aut anguste oblongum, convexum, metallicum, subtus pube sericeâ vestitum. *Caput* thorace insertum, perpendiculare; *mento* angulato-inciso; *antennis* filiformibus. *Thorax* transversus, marginatus. *Elytra* confuse vel substriatim punctata. *Pedes* robusti; *femoribus* plerumque muticis; *tibiis* anticis in ♂ sæpe intus curvatis, ad apicem incrassatis, quatuor posticis extus ad apicem non emarginatis; *unguiculis* bifidis. *Episterna* antica cuneiformia, sulcis inter prosternum et episterna sæpe obsoletis.

1. *Colasposoma inconstans*, Baly.

Desc. New Gen. and Spec. Phyt. p. 14.

Oblongum, convexum, metallicum, nitidum, labro, ore, antennis, unguibusque nigris; capite crebre punctato, fronte in medio longitudinaliter canaliculatâ, utrinque oblique elevato-strigosâ; thorace longitudine duplo latiore, lateribus rotundatis, angulis omnibus dente obtuso armatis, dorso subcrebre punctato; elytris thorace paullo latioribus, irregulariter sub-

seriatim punctatis, extus infra basin late transversim depressis et irregulariter elevato-strigosis.

Var. A. Corpore viridi-metallico.

Var. B. Corpore viridi-metallico ; elytris aureis.

Var. C. Corpore purpureo ; elytris cupreo-aureis, viridi-marginatis.

Long. $3\frac{1}{2}$—4 lin.

Hab. Celebes.

Head coarsely and closely punctured ; middle of the front impressed with a short longitudinal groove, interspaces thickened obliquely, elevate-strigate on either side the front ; anterior border of the epistome angulate-emarginate ; antennæ two-thirds the length of the body, black, basal joints stained with piceous. Thorax twice as broad as long ; sides rounded, scarcely converging in front, all the angles armed with a small obtuse tooth ; surface somewhat closely and irregularly punctured, puncturing coarser on the sides, on either side is a shallow ill-defined excavated space. Scutellum longer than broad, semiovate. Elytra broader than the thorax, broadly oblong, parallel, their apex broadly rounded ; above convex, excavated below the shoulder, surface covered with distinct punctures, arranged in irregular rows ; interspaces on the outer disk below the shoulder coarsely raised, and forming irregular transverse strigæ.

2. *Colasposoma Cumingii*, n. sp.

Oblongum, convexum, obscure viridi-æneum, nitidum, supra viridi-metallicum, ore antennisque nigris ; fronte subtumidâ, tubereulo oblongo margine inferiori instructâ ; thorace distincte minus crebre punctato ; elytris thorace paullo latioribus, irregulariter subseriatim punctatis, infra humeros late excavatis et irregulariter elevato-strigosis.

Var. A. Corpore viridi-æneo ; elytris æneis aut roseo-æneis.

Long. 3 lin.

Hab. Philippine Islands.

Head more finely and less closely punctured than in the last species ; front swollen, sides of its upper portion obliquely elevate-strigate, lower border furnished with an oblong tubercle ; upper border of epistome coarsely impresso-strigose ; basal joint of antennæ stained above with cupreous. Thorax more finely and less closely punctured than in *C. inconstans*. Elytra less regularly punctured, the raised strigæ on the shoulder more irregular.

3. *Colasposoma distinctum*, n. sp.

Oblongum, convexum, viridi-metallicum aut cupreum, nitidum, antennis nigris, basi piceis, labro obscure fulvo; fronte dense rugoso-punctatâ, interspatiis elevato-reticulatis; thorace lateribus regulariter rotundatis, crebre punctato, interspatiis ad latera elevato-reticulatis; elytris thorace latioribus, ante medium subfortiter, pone medium magis tenuiter subseriatim punctatis, infra humeros et infra basin excavatis, interspatiis minus distincte elevato-strigosis.

Long. $2\frac{1}{2}$ lin.

Hab. Coup.

Head closely rugose-punctate; interspaces closely elevate-reticulate. Thorax twice as broad as long, sides regularly rounded; surface very closely punctured, more especially on the sides, where the interspaces are thickened and irregularly reticulating. Elytra more finely punctured on their hinder half; excavation below the humeral callus extending inwards to the suture.

4. *Colasposoma nitidum*, n. sp.

Oblongum, convexum, cupreum, nitidum, ore antennisque nigris, his basi cæruleo-nigris; fronte crebre punctatâ, utrinque elevato-strigosâ, epistomate rugoso-punctato; thorace lateribus rotundatis, a basi ad apicem convergentibus, rude subcrebre punctato, lateribus crebre irregulariter punctatis; elytris fortiter subseriatim punctatis, infra humeros excavatis, interspatiis disci exterioris elevato-reticulatis.

Long. $2\frac{1}{2}$—3 lin.

Hab. Coup.

Head very closely and coarsely punctured, an oblong space just above the apex of the epistome smooth, impunctate; sides of the upper portion of the front obliquely elevate-strigose; antennæ three-fourths the length of the body, their lower half nitidous, steel-blue. Thorax very coarsely, closely and irregularly punctured on the sides, less closely punctured on the middle disk. Elytra strongly punctured, the punctures of equal strength to the apex, outer half of disk covered with coarse irregular waived reticulations; the punctures towards the apex of the inner disk arranged in slightly sulcate longitudinal striæ.

5. *Colasposoma mutabile*, n. sp.

Oblongum, convexum, viridi-metallicum, æneum aut purpureo-metallicum, antennis (basi exceptâ) nigris; capite fortiter punctato, interspatiis elevato-strigosis, fronte antice tuberculo parvo, et supra tuberculum foveâ parvâ instructâ; thorace lateribus regulariter rotundatis, minus crebre punctato; elytris subseriatim punctatis, infra humeros leviter excavatis, elevato-strigosis.

Var. A. Elytris viridi-aureis, utrisque plagâ magnâ trigonatâ purpureâ, infra basin positâ, ornatis.

Long. 3—3½ lin.

Hab. Java, Borneo, Malacca, Timor.

Head deeply punctured, puncturing subremote on the middle of the front, sides obliquely elevate-strigate; epistome longer than broad, sides nearly straight and parallel, surface more closely punctured than the front, coarsely rugose-punctate; at its apex is a distinctly-raised but ill-defined tubercle, immediately above which on the front is an oblong excavation. Thorax more than twice as broad as long; sides regularly rounded, scarcely converging in front; surface deeply but not very closely punctured on the disk, sides more closely punctured; interspaces near the lateral border thickened, elevate-reticulate. Elytra broader than the thorax, subquadrate-oblong, convex, excavated below the humeral callus, somewhat strongly punctured; the punctures irregularly arranged in longitudinal striæ; interspaces below the shoulder elevate-reticulate.

6. *Colasposoma nigriventre*, n. sp.

Anguste oblongum, viridi-metallicum, nitidum, abdomine antennisque nigris; capite fortiter punctato, vertice utrinque elevato-strigoso, epistomate apice lineâ elevatâ lævi instructo; thorace lateribus regulariter rotundatis, ad latera crebre, disco minus crebre punctato; elytris thorace latioribus, subseriatim punctatis, striis apicem versus prope suturam sulcatis, infra humeros late excavatis, irregulariter elevato-strigosis.

Long. 3 lin.

Hab. Pulo-Penang.

Head short, deeply punctured, puncturing subremote in the middle of the front, closer on the sides; interspaces on the sides

obliquely elevate-strigose; epistome pentagonal, coarsely and closely rugose-punctate at its apex, middle of the apical surface furnished with a broad slightly-raised, impunctate, longitudinal ridge, lower two-thirds of the disk more finely and less closely punctured; labrum and jaws black. Thorax nearly three times as broad as long, sides regularly rounded, slightly but distinctly converging in front; surface less coarsely and less closely punctured than in the preceding species; interspaces on the sides irregularly wrinkled. Elytra slightly broader than the thorax, subquadrate-oblong, convex, broadly but slightly excavated below the humeral callus, somewhat strongly punctured, punctures irregularly arranged in longitudinal striæ; interspaces near the suture thickened and subcostate at the apex, those on the outer disk behind the shoulder thickened, elevate-reticulate.

7. *Colasposoma propinquum*, n. sp.

Anguste oblongum, convexum, viridi-æneum aut cupreum, nitidum, antennis nigris, labro obscure piceo-fulvo; capite fortiter et crebre punctato, elevato-reticulato, fronte ad latera elevato-strigosâ, epistomate apice cretâ elevatâ vel tuberculo oblongo instructo; thorace lateribus rotundatis, antice convergentibus, subcrebre punctato; elytris subseriatim punctatis, infra basin et intra callum humerale excavatis, disco exteriori infra humeros elevato-strigosis.

Long. $2\frac{1}{2}$ lin.

Hab. Borneo.

Head deeply punctured, interspaces thickened, irregularly elevate-reticulate; front elevate-strigose on either side, epistome scarcely longer than broad, sides nearly straight and parallel, upper portion of the surface very coarsely rugose, raised in the middle into a short oblong ridge or tubercle. Thorax nearly three times as broad as long, sides rounded, converging in front, upper surface transversely convex, sides obliquely deflexed in front, closely punctured; disk on either side just in front of the base distinctly excavated. Elytra rather broader than the thorax, subquadrate-oblong, convex, broadly excavated below the humeral callus; strongly punctured, striæ irregularly arranged in longitudinal rows, interspaces below the shoulder coarsely elevate-reticulate.

8. *Colasposoma splendidum*, Fabr.

Eumolpus splendidus, Fabr. Syst. El. i. p. 420.

? *E. metallicus*, Fabr. *loc. cit.* (Amboina).

Late oblongum, convexum, viridi-metallicum aut æneum, infra viridi-æneum; capite fortiter punctato, fronte utrinque elevato-strigosâ, in medio longitudinaliter sulcatâ, epistomate apice tuberculo obtuso instructo; thorace lateribus rotundatis, disco subremote, ad latera crebrius punctato; elytris confuse, apicem versus subseriatim punctatis, interspatiis impresso-reticulatis, infra humeros excavatis, irregulariter elevato-reticulatis, intra marginem lateralem costatis; femoribus anticis incrassatis, subtus obsolete unidentatis.

Long. $3\frac{1}{2}$ lin.

Hab. Tringanee, Java, Celebes.

Head deeply punctured, sides obliquely elevate-strigose; middle of the front longitudinally sulcate; epistome pentagonal, rather longer than broad, upper portion of its surface coarsely rugose-punctate, the punctures in front placed in irregular rows, apex with a distinct tubercle; jaws and labrum black. Thorax three times as broad as long, sides regularly rounded; surface rather remotely punctured on the disk, sides more closely punctured. Scutellum impressed with remote punctures. Elytra rather broader and more strongly punctured than the thorax, the punctures confused on the anterior disk, irregularly arranged in longitudinal rows towards the apex; interspaces finely and rather minutely and remotely punctured, loosely impresso-reticulate, thickened and irregularly reticulate below the humeral callus, costate within the lateral margin.

9. *Colasposoma rugulosum*, n. sp.

Anguste oblongum, convexum, cupreum, nitidum, corpore subtus antennisque fulvo-piceis, his extrorsum nigris; capite rugoso-punctato; thorace lateribus rotundatis, antice convergentibus, dorso utrinque excavato, crebre punctato; elytris thorace paullo latioribus, parallelis, sat crebre confuse substriatim punctatis, interspatiis disci exterioris rude elevato-reticulatis.

Var. A. Corpore subtus cupreo.

Long. $2\frac{2}{3}$ lin.

Hab. Malacca.

This species may be known from its congeners by its narrow

form and by the very coarse raised reticulations of the outer disk of the elytra. Head closely punctured; labrum fulvous.

The two following species are unknown to me:—

10. *Colasposoma æneoviride*, Clark.

Ann. and Mag. Nat. Hist., February, 1865.

"C. parallelum, latum, robustum, breve, punctatum, nitidum, æneoviride: caput ad frontem longitudinaliter depressum, fortiter punctatum: thorax transversus, ad latera juxta frontem valde depressus, lateribus subrectis, versus apicem paulum contractis, marginatis, basi etiam subsinuata, marginata; thorax fortiter punctatus: scutellum subcordiforme, læve, viridi-æneum: elytra subparallela, robusta, humeris prominulis, lateribus vix versus apicem contractis, marginatis; elytra punctato-striata; puncta minuta, satis crebra, confuse (sed versus apicem in striis vix æqualibus) ordinantur: antennæ rufo-fuscæ: pedes nigri, tibiis tarsisque rufo-fuscis: corpus subtus nigrum.

Long. corp. lin. $4\frac{1}{2}$; lat. lin. 2.

Hab. Pulo-Penang." (Clark.)

11. *Colasposoma metallicum*, Clark.

Ann. and Mag. Nat. Hist., February, 1865.

"C. breve, robustum, ovale, nitidum, fortiter et crebre punctatum, æneo-metallicum: caput verticale, punctis confertis: thorax transversus, lateribus subrotundatis, marginatis, angulis anterioribus compressis, margine anteriore transverso, postico sinuato; ad mediam basin fovea minuta longitudinalis apparet; thorax punctatus, punctis minutis inordinatis sat confertis: scutellum subcordiforme, paucis punctis ornatum: elytra brevia, robusta, ad apicem late rotundata, marginibus paulum sinuatis (humeri ob depressionem obliquam posthumeralem satis extant), punctata; puncta haud thoracis puncta magnitudine æquant, sed magna, præsertim juxta margines (qui rugosi apparent), et conferta, juxta apicem striis disponuntur: corpus subtus, pedes et antennæ nigra.

Long. corp. lin. 3; lat. lin. 2.

C. metallicum is a smaller insect than *C. æneoviride;* the punctures differ in the two species in size, and the antennæ and legs in colour.

Hab. Pulo-Penang." (Clark.)

Eumolpus dentipes, Fabr. Syst. El. i. p. 450 (*nec* Oliv.), from Amboina, is probably a *Colaspoides*.

The two following species are also unknown to me; they belong in all probability either to *Rhyparida* or *Nodostoma*—*Typophorus* proper being entirely American.

Typophorus nigronotatus, Boh.

Eugenies Resa, Insekter, p. 163.

"Oblongo-ovatus, rufo-testaceus, nitidus; antennis extrorsum nigro-fuscis; prothorace parce punctulato, dorso maculis duabus oblongis nigris notato; elytris mediocriter punctato-striatis, striis apicem versus subtilioribus, sutura, fascia pone medium communi utrinque abbreviata, maculaque basali elongata singuli, nigris; femoribus posterioribus subtus dentatis.

Long. 2—2½; lat. 1¼—1⅓ millim.

Var. A. Signaturis prothoracis elytrorumque dilutioribus, ferrugineis, harum fascia postica interdum deficiente.

Patria: Java.

Caput rotundatum, convexum, rufo-testaceum, nitidum, subtiliter minus crebre punctulatum, inter oculos canalicula tenui transversa insculptum. Oculi rotundati, convexi, nigri. Antennæ longitudine dimidii corporis, flavo-testaceæ, extrorsum sensim incrassatæ, articulis quinque ultimis nigro-fuscis. Prothorax longitudine vix latior, apice utrinque leviter sinuatus, medio nonnihil rotundato-productus, basi parum profunde bisinuatus, lateribus tenuiter marginatus, pone apicem modice rotundato-ampliatus, angulis anticis deflexis, subobtusis, posticis rotundatis; superne convexus, rufo-testaceus, nitidus, parce punctulatus, maculis duabus oblongis nigris ornatus. Scutellum subtriangulare, rufo-ferrugineum, nitidum, breve. Elytra antice subtruncata, prothorace dimidio latiora at illo plus duplo longiora, humeris rotundatis, callo suprahumerali parum elevato, obtuso; lateribus vix ampliata, apice conjunctim rotundata, superne convexa, postice declivia, rufo-testacea, nitida, mediocriter minus crebre punctato-striata, striis apicem versus subtilioribus, sutura, fascia pone medium transversa communi, utrinque nonnihil obliqua, valde abbreviata, maculaque singuli basali elongata, nigris vel ferrugineis. Corpus subtus rufo-testaceum, nitidum, subtiliter crebre punctulatum. Pedes rufo-testacei, nitidi; femoribus incrassatis, posterioribus subtus dente brevi acuto armatis; tibiis posterioribus extus ante apicem emarginatis." (Boheman.)

Typophorus ruficeps, Boh.

Eugenies Resa, Insekter, p. 162.

" Breviter ovatus, convexus, niger, nitidus; antennis basi pedibusque flavo-testaceis; capite subtiliter crebre punctulato, inter oculos transversim canaliculato, rufo-testaceo; prothorace creberrime punctulato, margine apicali rufescente; elytris confertim punctato-striatis, interstitiis angustis, leviter convexis.

Long. $2\frac{1}{2}$; lat. $1\frac{1}{2}$ millim.

Patria: Java.

Caput sat magnum, subrotundatum, parum convexum, rufo-testaceum, subnitidum, crebre punctulatum, inter oculos transversim tenuiter canaliculatum. Palpi flavo-testacei. Oculi rotundati, convexi, nigri. Antennæ longitudine fere dimidii corporis, nigræ, articulis quinque basalibus testaceis, tribus ultimis modice incrassatis. Prothorax longitudine parum latior, apice truncatus, basi leviter rotundatus, lateribus non marginatis, ultra medium sensim rotundato-ampliatis, dein basin versus nonnihil angustatis; angulis anticis obtusis, posticis rotundatis; superne convexus, creberrime punctulatus, niger, subnitidus, antice anguste indeterminate rufescenti-marginatus. Scutellum subquadratum, nigrum, parum nitidum, subtiliter crebre punctulatum. Elytra antice truncata, prothorace duplo latiora, quam lata nonnihil longiora, humeris rotundatis, callo suprahumerali modice elevato, obtuso; lateribus pone basin leviter sinuata, dein perparum rotundato-ampliata, apice conjunctim rotundata; superne convexa, postice declivia, tota nigra, subnitida, crebre mediocriter punctato-striata, interstitiis angustis, leviter convexis, impunctatis. Corpus subtus nigrum, subnitidum, punctulatum. Pedes flavo-testacei, nitidi, parce breviter pubescentes." (Boheman.)

Fam. CHRYSOMELIDÆ, Lacordaire.

Genus Paropsis, Oliv.

Entom. v. p. 597 (1807); Baly, Journ. of Ent. ii. p. 291.

Notoclea, Marsham, Linn. Trans. ix. p. 284 (1808).

Corpus ovatum, oblongum aut rotundatum, valde convexum. *Antennæ* filiformes aut subfiliformes, dimidio corporis plerumque longiores. *Palpi* maxillares securiformes. *Thorax* transversus, antice late emarginatus, lateribus rotundato-

dilatatis, integris vel rarius emarginatis. *Elytra* confuse punctata aut punctato-striata, limbo laterali plus minusve dilatato. *Pedes* robusti; *tibiis* apice oblique incisis, interdum ante apicem angulato-dilatatis, pulvillis lineâ glabrâ plus minusve longitudinaliter divisis; *unguiculis* unidentatis. *Prosternum* elevatum.

Mas.—*Tarsorum* anticorum quatuor articulo basali plus minusve dilatato, pulvillis integris.

Fœm.—*Tarsorum* anticorum quatuor articulo basali non dilatato.

A. *Elytra irregularly punctured.*

1. *Paropsis ioptera*, n. sp.

Rotundato-ovata, valde convexa, pallide fulva, nitida; elytris metallico-violaceis, disco pallidioribus; antennis extrorsum nigro-fuscis.

Long. 5 lin.

Hab. New Guinea (Dorey), Mysol.

Thorax three times as broad as long, sides rounded at the base, thence obliquely converging to the apex; anterior angles rounded; surface finely and subremotely punctured on the disk, more closely and coarsely punctured on the sides; anterior portion of the disk also closely punctured, but the puncturing equally fine with that of the disk. Elytra broader than the thorax, sides nearly parallel, slightly dilated backwards, apex broadly rounded; surface more distinctly punctured than the thorax, punctures indistinctly arranged in irregular striæ, lateral margin moderately dilated, very slightly reflexed; limb metallic, violaceous, disk usually much paler, rufo-violaceous.

B. *Elytra regularly punctate-striate.*

2. *Paropsis nigripicta*, n. sp.

Late ovata, valde convexa, fulva, nitida; thorace utrinque intra latus leviter excavato, disco tenuiter ad latera varioloso-punctato; elytris regulariter punctato-striatis, fasciâ latâ basali, maculâ magnâ rotundatâ suturam includente, fasciâque communi pone medium, extrorsum abbreviatâ, postice supra suturam fere ad apicem extensâ, nigris.

Long. 4 lin.

Hab. Aru Islands, New Guinea.

Thorax nearly four times as broad as long, sides broadly

rounded at the base, obliquely converging from behind the middle to the apex, slightly excavated near the lateral border, finely variolose-punctate. Elytra broader than the thorax, sides below the base subparallel, apex broadly rounded; surface finely but regularly punctate-striate, lateral margin moderately dilated, deeply punctured.

3. *Paropsis Wallacei*, n. sp.

Rotundato-ovata, sat valde convexa, fulva, nitida, antennis apice nigris; thorace utrinque intra marginem excavato, tenuiter minus crebre punctato; elytris regulariter punctato-striatis, plagâ magnâ trigonatâ communi a basi fere ad apicem extensâ nigrâ instructis.

Long. $4\frac{1}{2}$—5 lin.

Hab. New Guinea (Dorey).

Head very finely and indistinctly punctured. Thorax nearly four times as broad as long, sides rounded at the base, thence obliquely converging to the apex, apical angle subacute; surface finely punctured, irregularly excavated on either side within the lateral border, surface of the excavations faintly wrinkled. Elytra broader than the thorax, sides rounded, apex broadly rounded; surface strongly punctate-striate, lateral margin somewhat broadly dilated, deeply punctured; nearly the whole back of the elytra is covered by a large triangular patch, which, stretching at its base from shoulder to shoulder, gradually narrows and terminates in an acute point on the suture at a short distance from the apex.

4. *Paropsis 5-maculata*, n. sp.

Late ovata, sat valde convexa, fulva, nitida; thorace utrinque excavato, disco tenuiter, ad latera rude punctato; elytris regulariter punctato-striatis, plagâ communi trigonatâ basali, maculâ oblongâ humerali, plagâque magnâ pone medium, nigris.

Long. 3 lin.

Hab. Batchian.

Head finely punctured. Thorax nearly four times as broad as long, sides rounded, obliquely converging from behind the middle to the apex, anterior angle subacute; surface excavated and coarsely punctured on the sides, finely and less closely punctured on the disk. Elytra scarcely broader at the base than the thorax, sides oval, apex broadly rounded, surface regularly and somewhat deeply punctate-striate; lateral border moderately dilated, deeply punctured.

Genus Chalcolampra, Blanch.

Voy. au Pôle Sud, Zool. iv. p. 328.

Phyllophila, Stål, Öfv. k. Vet. Akad. Förh., 1857, p. 59.

Corpus elongatum, subparallelum, convexum, metallicum aut non metallicum. *Caput* modice exsertum; *antennis* filiformibus, dimidio corporis longitudine æqualibus, apicem versus leviter incrassatis, articulo primo incrassato, secundo brevi; *palpis* ovatis, articulo ultimo conico. *Thorax* transverso-quadratus vel quadratus, elytris angustior. *Elytra* oblongo-ovata vel oblonga, punctato-striata. *Pedes* modice robusti; *unguiculis* unidentatis.

1. *Chalcolampra* 10-*pustulata*, Baly. (Pl. V.* fig. 3.)

Trans. Ent. Soc. 3rd ser. i. p. 619.

Anguste subelongata, convexa, parallela, nitida, capite thoraceque rufo-fulvis; antennis extrorsum, pectore, abdomine, scutello elytrisque nigris; horum maculis 10 pedibusque flavis, tarsis piceis.

Var. A. Thoracis disco piceo.

Long. 2 lin.

Hab. Batchian.

Head short, impressed on the front with several irregular foveæ; antennæ half the length of the body. Thorax finely punctured. Elytra distinctly punctate-striate on the inner disk, the outer disk irregularly punctured, each with five large yellow patches, the first four ovate, placed in two parallel rows, one just below the base, the other scarcely below the middle; the fifth patch is transverse and subapical.

2. *Chalcolampra* 18-*guttata*, Fabr.

Chrysomela 18-*guttata*, Fabr. Ent. Syst. I. i. p. 322.

Phyllocharis 18-*guttata*, Boisd. Voy. de l'Astrol. p. 575.

Phyllophila 16-*pustulata*, Stål, *loc. cit.*

Elongata, fulvo-flava, nitida; antennis, genibus, abdomineque nigris, hoc flavo-marginato; thorace fusco-notato; elytris fuscis vel piceis, utrisque pustulis pallide fulvis octo vel novem ornatis.

Var. A. Thoracis maculis obsoletis.

Long. 3 lin.

Hab. Pulo-Penang, Malacca, Singapore; also Ceylon, Australia.

Thorax transversely convex; sides straight and parallel behind

the middle, rounded and converging in front; surface smooth, very minutely punctured. Elytra broader than the thorax, oblong, nearly parallel, regularly punctate-striate; the surface of each covered with nine large oval pale fulvous spots, the first eight placed two and two in four transverse rows; the ninth, which stands alone at the apex, is often obsolete.

Genus Phyllocharis, Dalman.

Ephem. Ent. p. 20.

Corpus anguste oblongum aut elongatum, parallelum, convexum. *Caput* modice exsertum; *antennis* robustis, articulo basali subgloboso, duobus vel tribus proximis moniliformibus, æqualibus, cæteris submoniliformibus aut subfiliformibus; *palpis* maxillaribus brevibus, ovatis, articulis brevibus, basali minuto, secundo tertioque elevatis, hoc incrassato, ultimo conico, obtuso, rarius acuto. *Thorax* transversim quadratus, lateribus incrassatis, intus impresso-marginatis. *Elytra* thorace vix latiora, plerumque punctato-striata. *Pedes* modice robusti; *unguiculis* unidentatis.

1. *Phyllocharis cyanipes*, Fabr.

Chrysomela cyanipes, Fabr. Syst. Ent. i. p. 320; Syst. El. i. p. 436; Oliv. Ent. v. p. 541, pl. iv. fig. 50.
Chrysomela sinuata, Oliv. Ent. v. p. 543, pl. vii. fig. 100.
Phyllocharis sinuata, Boisd. Voy. de l'Astrol. p. 573.
Phyllocharis cyanitarsis, Cuv. Reg. Anim. pl. lxxiii. fig. 1.
Phyllocharis cyanipes, Homb. & Jacq. Voy. au Pôle Sud, Zool. iv. p. 330, pl. xviii. fig. 18; Dalman, Ephem. Ent. p. 21.

Oblonga, rufa, nitida; antennis, pedibus, fasciisque duabus elytrorum cyaneis.
Var. A. Elytris punctis posticeque cyaneis.
Long. $3\frac{1}{4}$—$4\frac{1}{2}$ lin.
Hab. Amboina; also Australia.

Oblong, shining red. Face deeply impressed; antennæ deep blue. Thorax narrowly margined, twice as broad as long, rather wider in front; the sides nearly parallel, slightly convex anteriorly, front margin concave, anterior angles subacute; surface convex, swollen in front, smooth, on the disk are a few indistinct punc-

tures, and a few coarse punctures are also placed along the extreme base; on either side of the base is a shallow punctured fovea; the posterior margin blue-black in the centre. Scutellum smooth, blue. Elytra nearly four times the length of the thorax, apex obtusely rounded, their sides more nearly parallel than in *P. cyanicornis* (Fabr.), slightly excavated behind the shoulders; surface irregularly punctured, the punctures less distinct towards the apex, disposed in irregular striæ near the suture; just before the middle is a broad, deep blue, flexuose, transverse band, from which a broad process passes upwards along the suture to the base; below the middle is a second band, from which a narrower process runs downwards to the apex. Beneath deep blue, sides and apex of the abdomen red.

The Var. A is the original *cyanipes* of Fabricius, and the typical form is the *sinuata* of Olivier.

2. *Phyllocharis undulata*, Fabr.

Chrysomela undulata, Fabr. Syst. El. i. p. 438.

Elongata, parallela, convexa, nigro-cærulea, nitida; thoracis lateribus, pectore, abdominis limbo, elytrisque rufis; thorace basi crebre, disco sparse punctato; elytris punctato-striatis, striis pone medium confusis, suturâ ad apicem et infra basin dilatatâ, fasciisque latis undulatis duabus, unâ ante, alterâ pone medium positis, nigro-cyaneis.

Var. A. Lineâ suturali in medio interruptâ.

Long. $4\frac{1}{2}$ lin.

Hab. Java, Singapore, Malacca, Timor.

Similar in form to *P. cyanipes;* thorax more closely punctured at the base; anterior half of elytra more regularly punctate-striate. Head rufous; antennæ nearly half the length of the body, blue-black. Thorax transversely depressed at the base, the depressed portion closely covered with distinct punctures.

3. *Phyllocharis violaceipennis*, Baly.

Journ. of Entom. i. p. 292.

Elongata, postice paullo angustata, rufo-testacea, nitida; elytris violaceo-cupreis, nitidissimis; antennis nigris.

Long. $2\frac{1}{4}$ lin.

Hab. New Guinea (Dorey).

Elongate, slightly narrowed behind, shining rufo-testaceous;

elytra violet-copper; antennæ black. Head shining, impunctate; epistome separated from the face by an angular groove, the apex of which is rounded; antennæ two-thirds the length of the body, robust, four basal joints shining, pitchy beneath. Thorax twice as broad as long; apex slightly concave-emarginate; sides straight and subparallel, narrowed and rounded in front, apex of anterior angles subacute; above transversely convex, surface smooth and shining, very remotely punctured, sides near the base impressed with numerous large round punctures. Scutellum semiovate, rufo-piceous. Elytra broader than the thorax, narrowly sub-ovate, slightly narrowed posteriorly, the apex itself subacutely rounded; above convex, sinuate on the sides below the shoulder; each elytron impressed with eleven rows of fine but deep punctures, the first row abbreviated; interspaces distantly impressed with fine but distinct punctures, which are often arranged in a single row down the centre of each interspace. Beneath shining rufo-testaceous, palpi pale piceous.

4. *Phyllocharis bicincta*, Guérin.

Voy. de la Coquille, ii. p. 145; Icon. du Règne Anim. pl. xlix. fig. 3.

Phyllocharis immaculicollis, Blanch. Voy. au Pôle Sud, Zool. iv. p. 331, pl. xviii. fig. 19.

Elongata, rufo-testacea, nitida, antennis nigro-cyaneis, scutello nigro; elytris thorace latioribus, punctato-striatis, postice confuse punctatis, fasciis duabus latis, unâ basali, alterâ pone medium positâ, nigro-cyaneis; pedibus, pectore, abdomineque nigro-cyaneis, hoc apice rufo.

Long. 5 lin.

Hab. New Guinea (Dorey).

Thorax transverse, impunctate, transversely depressed along the basal margin; sides nearly straight, rounded and converging in front. Elytra broader than the thorax, parallel, punctate-striate on the anterior disk, irregularly punctured below the middle; the basal band occupying the anterior third of the elytra, the posterior band equally broad, occupying nearly the whole of the hinder disk.

5. *Phyllocharis apicalis*, Baly.

Trans. Ent. Soc. 3rd ser. i. p. 617.

Elongata, parallela, convexa, cæruleo-nigra, nitida; elytris ob-

scure cæruleis, horum apice, capite, thorace abdomineque (hujus disco excepto) rufo-fulvis; antennis nigris.

Long. $5\frac{1}{2}$ lin.

Hab. New Guinea (Dorey).

Elongate, convex, parallel, blue-black, nitidous; head, thorax, limb and apical segments of abdomen, together with the posterior third of the elytra, rufo-fulvous; the remaining portion of the latter obscure metallic-blue. Head smooth, epistome depressed, separated from the face by an angular groove, just above the apex of which is a large deep fovea, from which a longitudinal groove runs upwards to the vertex; antennæ rather longer than half the body, black. Thorax nearly twice as broad as long, moderately convex, smooth, impunctate, with the exception of four parallel foveæ placed two together on either side the disk. Elytra rather broader than the thorax, the sides parallel, apex subacutely rounded; above convex, shoulders slightly prominent, excavated and concave on the outer side below the shoulder; each elytron impressed with about ten indistinct rows of punctures, the first very short; the rows are entirely lost on the posterior third of the surface, which is irregularly punctured; the spaces between the striæ (more especially on the outer disk) are impressed with punctures equal in depth and size to those belonging to the rows themselves, rendering the latter still more difficult to define; the species, however, doubtless varies greatly in the force and depth of the punctation, one of my specimens being more deeply impressed than the other; in the same specimen the thorax is transversely excavated on either side at the base.

6. *Phyllocharis Wallacei*, Baly.

Journ. of Entom. i. p. 292.

Elongata, metallico-cærulea, nitida; thorace pedibusque chalybeis.

Long. $2\frac{1}{2}$ lin.

Hab. Batchian.

Elongate, dark shining metallic blue, thorax and legs bright steel-blue. Head smooth and shining, impunctate; epistome separated from the face by a deeply impressed angular groove, from the apex of which a shallow curved groove runs obliquely upwards on either side to the upper portion of the eye; labrum piceous, its outer edge obscure fulvous, its surface sparingly covered with coarse white hairs; antennæ robust, scarcely more than half the length

of the body, four basal joints glabrous, shining, the rest opake, covered with short black pubescence. Thorax twice as broad as long; apex slightly concave-emarginate; sides nearly straight and subparallel, narrowed and rounded in front, apex of anterior angle obtuse; above convex, smooth and shining, sparingly impressed here and there with a few deep punctures. Scutellum smooth and shining, semiovate. Elytra broader than the thorax, oblong-ovate, sides slightly oval; apex subacutely rounded; above convex, deeply punctate-striate, punctures regularly but somewhat distantly placed on the striæ; interspaces smooth and shining, impunctate.

7. *Phyllocharis viridicænea*, n. sp.

Elongata, parallela, convexa, viridi-ænea, nitida, antennis nigro-cæruleis, abdomine rufo-fulvo; thorace lateribus basi rectis, vix ante medium apicem versus rotundato-angustatis, disco fere impunctato, lateribus subcrebre punctato.

Long. $2\frac{1}{2}$ lin.

Hab. Ceram.

Thorax twice as broad as long, sides straight and parallel behind the middle, rounded and converging in front; sides distinctly punctured, disk impunctate. Elytra rather broader than the thorax, subparallel, narrowed towards the apex; regularly punctate-striate. Antennæ nearly two-thirds the length of the body.

8. *Phyllocharis abdominalis*, n. sp.

Elongata, parallela, purpurea, nitida, abdomine rufo-fulvo; thorace transverso, lateribus fere rectis, viridi-æneo, subtenuiter subremote punctato; elytris regulariter punctato-striatis; tibiis tarsisque obscure rufo-piceis.

Long. $2\frac{1}{2}$ lin.

Hab. New Guinea (Dorey).

Head remotely punctured, metallic-green; antennæ robust, two-thirds the length of the body, blue-black. Thorax twice as broad as long, sides straight and parallel, scarcely converging at the apex; surface subremotely impressed with fine but distinct punctures, which are scattered nearly equally over the whole disk. Elytra broader than the thorax, subparallel, slightly narrowed near the apex; regularly punctate-striate.

This species may be known from the last by the straight sides

of the thorax and by the punctures being scattered more equally over its surface.

Genus Æsernia, Stål.

Öfvers. Kongl. Vet. Akad. Förh. 1860, p. 455.

Corpus elongatum. *Caput* modice exsertum; *antennis* filiformibus; *palpis* maxillaribus articulo ultimo penultimo breviore, minore, truncato. *Thorax* transversus, elytris angustior, lateribus intus excavato-marginatis. *Elytra* thorace latiora, parallela, punctato-striata, postice sæpe confuse punctata. *Pedes* robusti; *unguiculis* muticis. *Prosternum* valde elevatum, antice angustatum, postice marginatum, mesosterno æquialtum. *Mesosternum* brevissimum, angulatum.

1. *Æsernia magnifica*, Baly.

Trans. Ent. Soc. 3rd ser. i. p. 618.

Elongata, convexa, viridi-ænea, nitida; abdomine fusco-fulvo, elytrorum dimidio postico fulvo; thorace medio longitudinaliter canaliculato, lateribus intus profunde excavatis et punctatis; elytris punctato-striatis, striis sulcatis, pone medium obsoletis.

Long. 12½ lin.

Hab. New Guinea.

Elongate, convex, subparallel, shining metallic green. Head fusco-violaceous, vertex metallic green; antennæ purplish black; vertex impressed with a deep longitudinal groove, which runs downwards as far as the semicircular groove separating the epistome from the face. Thorax transverse, twice as broad at the base as long, sides nearly straight, gradually narrowed from the base to the apex, more quickly narrowed immediately behind the latter; anterior angles produced, subacute, anterior margin concave; upper surface very slightly convex, middle of the disk impressed with a longitudinal groove; surface smooth, impressed towards the sides with shallow foveæ; immediately within the lateral border is a large, deep, irregular excavation, extending the whole length of the side, its surface deeply impressed with large round punctures; colour bright metallic green, with a faint brassy tinge. Elytra broader than the thorax, subparallel in front, but at the same time slightly increasing in width from the base to the end of the second third; thence to the apex they are obliquely narrowed, the apex itself being slightly reflexed and subacute;

upper surface convex, impressed below the shoulders with three or four nearly obsolete foveæ; each elytron with eleven distinctly-punctured sulcate striæ, the first very short, all the others terminating just below the middle of the elytron; posterior two-fifths of the surface fulvous, irregularly punctured.

2. *Æsernia regalis*, Baly.

Trans. Ent. Soc. 3rd ser. i. p. 618.

Elongata, convexa, supra fulva, nitida, verticis plagâ elytrisque viridi-metallicis, his margine angusto, plagâ humerali fasciâque latâ flexuosâ, vix pone medium positâ, fulvis; antennis nigro-æneis; thorace transverso-quadrato, lateribus longitudinaliter sulcato; subtus ænea, prothorace abdominisque apice fulvis; femoribus anticis basi et infra rufo-piceis.

Long. 9 lin.

Hab. Aru Islands.

Elongate, subparallel, convex, bright shining fulvous above, a large patch on the vertex, and the elytra, bright metallic green; these latter with a narrow line on their outer margin, a patch on the shoulder and a broad transverse flexuose band immediately behind their middle, fulvous; antennæ nigro-æneous, two basal joints fulvous beneath. Head smooth, impunctate, face impressed between the eyes with a large deep triangular fovea, divided in the centre by a longitudinal groove, which extends upwards on the vertex; epistome distantly punctured; apex of jaws obscure æneous; antennæ rather longer than half the body. Thorax twice as broad as long; apical border regularly concave-emarginate; sides subparallel, subsinuate, narrowed in front, anterior angles submucronate, their apex obtuse; above smooth and shining, impunctate, sides impressed just within their outer border with several deep foveæ, which are more or less confluent, and form a deep longitudinal fossa, which extends nearly from the base to the apex of the thorax. Scutellum subtrigonate, its apex obtuse. Elytra rather broader than the thorax; sides subparallel, slightly sinuate below the shoulders, indistinctly dilated behind their middle; apex angustate-rotundate; above convex, each elytron with eleven regular rows of distinct punctures, the outer one placed on the extreme lateral edge, the first abbreviated a short distance from its base, the others irregular below their middle, and entirely lost on the apical third of the surface, which is smooth and nearly free from punctures; on the disk below the shoulders are three short transverse deeply impressed fossæ,

and along the outer border are placed several others, longitudinal, the surface of all being deeply punctured.

3. *Æsernia Whitei*, Baly. (Pl. V.* fig. 6.)

Journ. of Entom. i. p. 293.

Elongata, convexa, subparallela, metallico-viridis, nitida; capite (plagâ magnâ frontali exceptâ), thorace infra, mesocoxis, trochanteribus, femoribus infra abdominisque apice, rufo-fulvis; antennis nigro-cæruleis, articulo basali subtus fulvo; thorace læte viridi-æneo, apice lateribusque rufo-fulvo marginato; elytris sat fortiter punctato-striatis, striis apicem versus fere deletis, utrisque infra basin transversim sulcatis foveisque nonnullis impressis, metallico-viridibus, purpureo-micantibus, fasciâ transversâ vix pone medium utrinque abbreviatâ fulvâ, instructis.

Long. 7—9 lin.

Hab. New Guinea, Waigiou.

Elongate, subparallel, moderately convex. Head impressed between the eyes with a large triangular fovea; antennæ filiform, two-thirds the length of the body. Thorax about a third as broad again at the base as long, narrowed from base to apex, apical margin concave, sides straight, obliquely narrowed at the apex; above smooth and shining, middle of the disk impressed with a faint longitudinal line; just within the outer border are a number of deep irregular excavations, the surfaces of which are deeply punctured; the green colour of the disk varies greatly in extent in different individuals, in some covering nearly the whole thorax, in others occupying only the centre of the disk, the rest of the surface being rufo-fulvous. Elytra scarcely broader than the base of the thorax, sides subparallel, apex subacutely rounded; surface of each impressed with eleven rows of punctures, the first abbreviated; on the basal half the striæ are well marked and deeply punctured, on the apical half they become faint, confused, and nearly obsolete.

4. *Æsernia splendida*, Boisd.

Promechus splendidus, Boisd. Voy. de l'Astrol. p. 575.

Phyllocharis splendida, Blanch. Voy. au Pôle Sud, Zool. iv. p. 332, pl. xix. fig. 2.

Elongata, parallela, convexa, aurea, micans, ore ferrugineo, antennis cyaneis, basi ferrugineis; thorace nitido, lateribus intus profunde excavato-punctatis; elytris thorace latioribus,

striato-punctatis, aureo-viridibus, postice cyaneis, apice testaceis; pedibus viridibus, abdomine apice testaceo.

Long. 7—9 lin.

Hab. New Guinea.

Front stained with metallic-green, impressed with a large deep excavation, down the middle of which runs a longitudinal groove; antennæ half the length of the body, two lower joints rufo-fulvous, stained above with metallic-green. Thorax twice as broad as long; sides straight, slightly converging from base to apex, more quickly converging at the extreme apex, sides bordered within by a broad, deep, very coarsely and irregularly excavated longitudinal space; disk smooth, impunctate. Elytra metallic-green, broader than the thorax, parallel, convex, irregularly foveolate below the basilar space, punctate-striate; hinder third of the surface irregularly punctured, metallic-blue; the extreme apex testaceous. Abdomen rufo-testaceous, more or less stained at its base with piceous.

5. *Æsernia splendens*, Guérin.

Phyllocharis splendens, Guérin, Voy. de la Coquille, ii. p. 244; Icon. Règ. Anim. Ins. pl. xlix. fig. 4; Blanch. Voy. au Pôle Sud, Zool. iv. p. 333, pl. xix. fig. 3.

Elongata, parallela, convexa, subtus obscure ænea, nitida, abdominis apice femoribusque basi rufo-testaceis; capite testaceo-fulvo, sæpe aureo-tincto, antennis nigris; thorace viridi-æneo vel aureo, lateribus intus profunde excavato-punctatis, disco lævi; elytris thorace latioribus, parallelis, apicem versus vix ampliatis, convexis, infra basin et prope medium transversim foveolatis, punctato-striatis, pone medium tenuiter confuse punctatis, viridi-æneis, dimidio postico fulvo.

Var. A. Elytris viridi-æneis, apice extremo fulvo.

Long. 6—10 lin.

Hab. New Guinea, Salwatty.

Head and thorax similar in form and sculpture to the preceding species, with the exception of a short longitudinal groove, which is placed just in front of the middle of the basal margin of the thorax. Elytra broader than the thorax, parallel in the ♂, slightly dilated posteriorly in the ♀; anterior disk regularly punctate-striate, hinder disk finely and irregularly punctured; on the anterior disk, just below the basilar space, is a broad transverse row of deeply excavated foveæ, extending from the outer border two-

thirds across the disk; a second shorter row is placed on the outer disk just before its middle, whilst a third, still shorter, is placed on the middle of the inner disk; the fulvous colour varies greatly in extent; it usually occupies the hinder half of the surface; in other cases it is confined to the extreme apex, and every intermediate degree occurs between the two extremes.

Genus Stethomela, Baly.

Trans. Ent. Soc. 2nd ser. iii. p. 251.

Corpus oblongum aut elongatum, convexum, parallelum. *Caput* modice exsertum; *antennis* filiformibus, apicem versus interdum leviter incrassatis, dimidii corporis longitudine vel paullo longioribus; *palpis* maxillaribus clavatis, articulo ultimo truncato. *Thorax* transversus, lateribus non incrassatis. *Elytra* thorace latiora, parallela, convexa, regulariter punctato-striata. *Pedes* mediocres; *tibiis* simplicibus; *unguiculis* unidentatis.

1. *Stethomela scintillans*, Baly.

Journ. of Entom. i. p. 294.

Subelongata, convexa, nitida, obscure rufo-picea, æneo-micans, supra æneo-cuprea, antennis extrorsum nigris, pedibus obscure rufis, genibus cupreis; thorace transverso, disco irregulariter subremote, lateribus subcrebre viridi-æneo-punctato; elytris punctato-striatis, punctis viridi-æneis.

Long. 5 lin.

Hab. New Guinea (Dorey).

Oblong, convex; face deeply impressed between the eyes, lower portion distinctly punctured; vertex remotely covered with minute punctures. Thorax more than twice as broad as long, apex deeply concave; sides nearly straight, narrowed from base to apex, rounded in front; posterior angles slightly produced; surface covered with moderate-sized but deep punctures, which have a strong brassy-green reflexion. Each elytron impressed with eleven rows of similar punctures, the first abbreviated; the punctures on each stria irregularly arranged in a single line.

2. *Stethomela consimilis*, n. sp.

Subelongata, parallela, convexa, subtus pallide rufo-picea, supra

cuprea, nitida; thorace transverso, irregulariter punctato; elytris irregulariter punctato-striatis, punctis concoloribus.

Long. 5 lin.

Hab. Amboina, Ceram.

Very closely related to *S. scintillans*, and possibly a local variety of that insect. Head rufo-piceous; antennæ pale rufo-fulvous; thorax rather less closely punctured on the sides than in *S. scintillans*, the puncturing as well as that on the elytra concolorous with the general surface.

3. *Stethomela grandis*, n. sp.

Anguste oblonga, convexa, cuprea, nitida; tibiis (basi exceptâ) tarsisque rufo-fulvis; antennis basi fulvis, articulis intermediis nigris, tribus ultimis sordide albidis; thorace tenuiter hic illic sparse punctato; elytris oblongis, thorace latioribus, convexis, infra humeros foveolatis, distincte punctato-striatis.

Long. 6 lin.

Hab. New Guinea (Dorey).

Thorax finely and sparingly punctured, punctures irregularly congregated over the whole surface. Elytra oblong, parallel, outer disk transversely excavated below the shoulder, impressed with several large oblong foveæ; surface distinctly punctate-striate.

Much larger than *S. scintillans;* thorax more finely and distantly punctured.

4. *Stethomela æneipennis*, Baly.

Journ. of Entom. i. p. 293.

Anguste oblonga, convexa, rufa, nitida; palpis antennisque flavis, his articulis intermediis nigris; elytris viridi-æneis, punctato-striatis, lateribus infra humeros trifoveolatis.

Long. 4 lin.

Hab. Batchian.

Oblong, convex, shining rufous; labrum, palpi and antennæ yellowish-white, the latter with the fifth and three following joints black; elytra punctate-striate, bright metallic-green. Head shining, impunctate; clypeus separated from the face by a very deeply impressed angular groove, from the apex of which a short deeply grooved line runs upwards on the face; jaws deeply punctate, their apex black; antennæ slender, filiform. Thorax nearly three times as broad as long; apex slightly concave-emarginate; sides

rotundate-angustate in front, more quickly narrowed at the apex, nearly straight and parallel behind, anterior and posterior angles slightly produced, acute; above moderately convex, smooth and shining, sparingly impressed with fine but distinct punctures; sides near the anterior angles obsoletely excavated; extreme lateral and basal margins indistinctly edged with piceous. Scutellum semiovate, smooth and shining. Elytra broader than the thorax, nearly twice as long as broad, nitidous, bright metallic-green; sides subparallel, apex regularly rounded; above convex, each elytron with eleven rows of distinct punctures, the first abbreviated, outer row placed on the extreme lateral margin, subsulcate; striæ towards their apex much more finely impressed, nearly obsolete; interspaces smooth and shining, impunctate; each elytron also impressed with two deep foveæ placed transversely immediately below the shoulder, the outer one on the lateral border larger and deeper than the other, which is ovate and placed in the middle of the disk; on the outer margin beyond its middle are also several indistinct foveæ.

5. *Stethomela variabilis*, Baly. (Pl. V.* fig. 8.)

Trans. Ent. Soc. 3rd ser. i. p. 622.

Anguste oblonga, convexa, rufo-fulva, nitida, capite abdomineque (hujus segmento apicali excepto) piceis, antennis nigris; elytris purpureis, fasciâ latâ transversâ prope medium rufo-fulvâ.

Var. A. Elytris rufo-fulvis, fasciâ latâ basali et singulis plagâ magnâ subapicali purpureis; abdomine rufo-fulvo.

Var. B. Capite rufo-fulvo, elytris (basi prætermissâ) purpureis.

Long. 4—5 lin.

Hab. Mysol.

Oblong, convex, parallel, very variable in markings and colour. Head smooth; epistome separated from the face by a deep transverse groove, from the middle of which a short longitudinal grooved line runs upwards on the face; antennæ more than half the length of the body, black, the two basal joints fulvous beneath; epistome fulvous. Thorax rather more than twice as broad as long; sides straight and parallel, narrowed and rounded in front; anterior angles subacute, anterior margin concave; above moderately convex, smooth, impunctate. Elytra broader than the thorax, sides parallel, their apex regularly rounded, each elytron impressed with eleven rows of distinct punctures,

the outer one placed on the lateral border, entire, the one nearest the suture very short, the others all terminating about the commencement of the hinder third of the elytron, which is very smooth and impunctate; the seventh stria from the suture becomes irregular and confused just before its termination. A line on the anterior surface of the apical half of the thighs, together with a similar stripe extending along the whole front edge of the tibiæ, piceous.

6. *Stethomela quadripustulata*, n. sp.

Elongata, pallide piceo-rufa, nitida, antennis fulvis, extrorsum fuscis; thorace irregulariter hic illic tenuiter punctato; elytris thorace vix latioribus, parallelis, regulariter punctato-striatis, obscure castaneis, utrisque pustulis magnis duabus fulvis, unâ ante medium transversâ, alterâ prope apicem irregulari, ornatis.

Long. $3\frac{3}{4}$ lin.

Hab. Mysol.

Head broad; epistome separated from the face by an angular groove, longitudinal groove on the front nearly obsolete. Thorax nearly three times as broad as long; sides nearly straight and parallel behind the middle, thence obliquely rounded and converging to the apex; surface finely punctured, punctures irregularly congregated here and there over the whole surface. Elytra oblong, parallel, very irregularly punctate-striate interspaces smooth, impunctate.

Genus Augomela, Baly.

Trans. Ent. Soc. 2nd ser. iii. p. 253.

Corpus rotundato-ovatum vel ovatum, convexum. *Caput* modice exsertum; *antennis* dimidio corporis brevioribus, subincrassatis, articulis 2—4 filiformibus, cæteris ad apicem gradatim incrassatis, compressis; *palpis* maxillaribus clavatis, apice truncatis. *Thorax* transversus. *Elytra* thorace latiora, punctato-striata. *Pedes* mediocres; *tibiis* simplicibus; *unguiculis* unidentatis. *Prosternum* carinatum, basi bilobatum, antice obtuse truncatum vel in dentem obtusum productum.

1. *Augomela dives*, Baly.

Trans. Ent. Soc. 2nd ser. v. p. 157.

Late ovata, convexa, aureo-ænea, nitidissima, lineâ verticali,

thoracis limbo angusto, basi dilatato, et elytrorum suturâ, margine laterali, lineâ transversâ ante medium utrinque abbreviatâ, vittâque posticâ disco exteriori positâ, nitido-cæruleis; subtus nitido-purpurea, abdomine pedibusque auro-maculatis.

Long. 3 lin.

Hab. New Guinea.

Broadly ovate, convex, bright golden-green; a longitudinal line on the vertex, the narrow limb of the thorax, dilated at the basal margin, the extreme outer border of the elytra, the suture, a transverse line in front and a short vitta behind near the outer margin, bright metallic-blue; these markings are all more or less bordered with metallic-green. Head smooth, face separated from the clypeus by a deep transverse groove, front with a longitudinal grooved line, which runs downwards to the middle of the transverse groove; antennæ bluish-black, the basal joint and the under surface of the two or three following joints fulvous. Thorax more than twice as broad as long; sides rounded, narrowed in front, nearly straight behind; surface very faintly and minutely punctured; remotely scattered here and there are some deep but fine punctures. Scutellum purple. Elytra convex, smooth and shining; sides transversely impressed below the shoulder; each elytron with eleven regular rows of punctures, the first abbreviated; the suture, the extreme outer border, a transverse band in front, commencing at the outer extremity of the transverse depression and extending inwards as far as the third stria from the suture, and a short vitta behind the middle, placed on the outer disk, bright metallic-blue. Beneath bright purple, legs and abdomen marked with coppery-gold.

This beautiful species, which was not taken by Mr. Wallace during his expedition to New Guinea, is the only insect of the genus found, according to my present knowledge, in the Malay Archipelago.

Genus Chrysomela, Linn.

Fauna Suecica, p. 160.

Corpus oblongum, anguste oblongum aut ovatum, convexum, plerumque metallicum. *Caput* modice exsertum; *antennis* filiformibus aut subfiliformibus, articulo primo incrassato, secundo brevi, tertio elongato, quinque ultimis leviter compressis, apicem versus vix incrassatis; *palpis* maxillaribus clavatis, articulo ultimo truncato. *Thorax* transversus, lateribus incrassatis, plerumque intus excavato-marginatis.

Elytra punctato-striata aut confuse punctata. *Pedes* modice robusti; *unguiculis* simplicibus. *Prosternum* non carinatum.

1. *Chrysomela stictica*, Stål.

Öfv. Kongl. Vet. Akad. Förh. 1857, p. 59.

Ovalis, obscure ænea, subtus chalybeo-micans; labri marginibus testaceis; capite parcissime punctato; thorace disco parce, sat rude, latera versus intra marginem densius impresso-punctato; elytris seriatim irregulariter remote subimpresso-punctatis.

Long. $3\frac{1}{2}$—$4\frac{1}{2}$ lin.

Hab. Java, Pulo-Penang.

Epistome separated from the front by a deep semioval groove, from the middle of which a deeply impressed longitudinal line runs upwards to the vertex. Thorax more than twice as broad as long, sides nearly straight and slightly diverging from the base to before the middle, thence rounded and converging to the apex; disk very distantly impressed with large round punctures, sides thickened, bordered within by a longitudinal depression, covered but not very closely with large foveolate punctures. Elytra broadly oblong, broader than the thorax, convex, impressed with large foveolate punctures, arranged very irregularly and distantly in six double longitudinal rows; interspaces smooth, impunctate.

Genus Chalcomela, Baly.

Trans. Ent. Soc. 2nd ser. iii. p. 258.

Corpus rotundatum aut rotundato-ovatum, valde convexum. *Caput* thorace valde insertum, breve; *antennis* subincrassatis, dimidio corporis brevioribus, robustis, articulo basali clavato, tribus proximis filiformibus, cæteris ad apicem gradatim incrassatis, compresso-dilatatis; *palpis* maxillaribus ovatis, articulo primo minuto, secundo tertioque clavatis, penultimo leviter incrassato, ultimo præcedenti æquali, truncato. *Thorax* transversus, antice late excavatus, sæpe utrinque sinuatus. *Elytra* thorace plerumque latiora, rotundato-ovata, limbo inflexo dilatato; convexa, regulariter punctato-striata. *Pedes* breves, robusti; *tarsorum* quatuor anticorum articuli basalis pulvillo ♂ integro, ♀ longitudinaliter diviso; *unguiculis* muticis.

1. *Chalcomela intermedia*, n. sp.

Ovato-rotundata, valde convexa, picea, nitida, pedibus (tibiis

tarsisque intermediis exceptis) pallide rufo-piceis; antennis basi fulvis, articulis intermediis nigris, tribus ultimis albidis; epistomate thoraceque rufo-fulvis, hoc sparse hic illic punctato; elytris regulariter punctato-striatis, cupreo-violaceis.

Long. 3 lin.

Hab. Mysol, Ceram.

Antennæ compressed and broadly dilated towards the apex. Palpi swollen. Thorax three times as broad as long, sides nearly straight and parallel, converging at the apex; surface nearly impunctate. Elytra strongly punctate-striate. Outer border of the abdomen pale piceous.

2. *Chalcomela rubripustulata*, n. sp.

Rotundata, valde convexa, semiglobosa, cuprea, nitida, violaceo-micans, subtus rufo-picea; thorace cæruleo-æneo, subcrebre punctato; elytris regulariter punctato-striatis, utrisque maculis rotundatis duabus magnis rufis, unâ basali, alterâ infra medium positâ, ornatis.

Long. 3—3½ lin.

Hab. New Guinea.

Antennæ rufo-fulvous. Thorax four times as broad as long, sides rounded at the base, obliquely converging from before the base to the apex, more quickly narrowed at the extreme apex, surface somewhat closely punctured. Elytra rather strongly punctate-striate.

3. *Chalcomela nigripennis*, n. sp.

Ovata, valde convexa, pallide rufo-picea, nitida, antennis subincrassatis, fulvo-albis, articulis intermediis nigris; thorace antice concavo-emarginato, disco tenuiter punctato; elytris nigris, basi thorace latioribus, postice leviter attenuatis, regulariter punctato-striatis.

Long. 2 lin.

Hab. Waigiou.

Thorax more than three times as broad as long, sides rounded and converging from base to apex; anterior margin regularly concave-emarginate, not sinuate at the sides. Scutellum piceous. Elytra broader at the base than the thorax, shoulders rounded, sides slightly but distinctly narrowed towards the apex; upper surface regularly punctate-striate; interspaces very minutely punctured.

Genus Agasta, Hope.

Coleop. Man. iii. p. 177.

Corpus ovatum, convexum. *Caput* parvum; *antennis* thorace paullo longioribus, articulo basali incrassato, secundo brevi, tertio elongato, sequentibus gradatim crassioribus; *palpis* maxillaribus brevibus, articulo primo minimo, secundo multo crassiori, tertio quartoque rhombiformibus. *Thorax* transversus. *Elytra* elongato-quadrata, confuse punctata. *Pedes* simplices; *unguiculis* muticis.

1. *Agasta formosa*, Hope.

Coleop. Man. iii. p. 177, pl. ii. fig. 3.

Flava, thorace nigro-quinque-notato, elytris cyaneo-maculatis.

Var. A. Thoracis maculis plus minusve obsoletis.

Var. B. Thorace toto nigro.

Long. 5 lin.

Hab. Java, Singapore; also Siam, China.

Thorax twice as broad as long, sides slightly diverging from base to apex; surface somewhat irregularly punctured on the sides, smooth on the disk, marked with five black spots, a small one on either side near the middle of the lateral margin, a lunulate one on either side the middle disk, and the fifth clavate, longitudinal, placed behind the others just in front of the scutellum. Elytra much broader than the thorax, oblong-ovate, irregularly punctured, each with eight blue-black spots, viz., two at the base, one of which is large and covers the humeral callus, the other small, on the outer border; two just before the middle of the disk, both large, one subtriangular, near the suture, the second transversely oblong, attached to the lateral margin; one nearly round, on the middle of the disk; two placed transversely and slightly obliquely behind the middle, the first near the suture, either round or subtriangular, the second transverse, on the outer border; the eighth, round or subtrigonate, is situated on the middle disk just before its apex.

Genus Plagiodera, Redtenb.

Faun. Austr. p. 553.

Corpus oblongum, modice convexum. *Caput* modice exsertum; *antennis* dimidio corporis brevioribus, subfiliformibus; *palpis* maxillaribus gracilibus, articulis cylindricis. *Thorax* transversus. *Elytra* thorace latiora, confuse aut striatim punctata, limbo inflexo concavo. *Pedes* mediocres, simplices; *un-*

guiculis muticis. *Prosternum* postice lobatum. *Episterna* postica pone medium intus ampliata.

1. *Plagiodera marginata*, n. sp.

Anguste oblonga, modice convexa, pallide fulva, nitida, antennis extrorsum nigro-fuscis; thorace transverso, lateribus leviter rotundatis, antice angustatis, angulo antico rotundato, disco lævi, minute et remote punctato; elytris oblongis, thorace latioribus, convexis, dorso deplanatis, subfortiter striatim punctatis, margine laterali incrassato, nigro-piceis, late fulvo-marginatis.

Long. $3\frac{1}{2}$ lin.

Hab. New Guinea.

Thorax three times as broad as long, sides rounded, converging from the middle to the apex, surface shining, very minutely punctured. Elytra broader than the thorax, oblong, slightly flattened on the back; lateral border thickened.

2. *Plagiodera pallida*, n. sp.

Anguste ovalis, convexa, flava, nitida, antennis basi exceptâ nigris; thorace tenuissime punctato; elytris tenuiter striatim punctatis, margine laterali incrassato.

Long. 3 lin.

Hab. Amboina.

Antennæ scarcely longer than the head and thorax, subincrassate, four lower joints flavous, the rest black. Thorax nearly three times as broad as long, sides rounded and converging from base to apex, anterior border concave-emarginate, anterior angles subacute; surface very minutely but irregularly punctured. Elytra much broader than the thorax, ovate, finely punctured; the punctures arranged, although rather indistinctly, in double longitudinal rows.

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VOL. 30, 1867.

II. *On the* Pieridæ *of the Indian and Australian Regions.*

By Alfred R. Wallace, F.Z.S., &c.

[Read 18th February, 1867.]

The *Pieridæ* form a rather extensive group of diurnal *Lepidoptera* abundantly distributed over the whole world, and typically represented in our own country by the "cabbage," the "orange tip," the "brimstone" and the "wood white" butterflies. The white or yellow colour that characterizes these familiar insects is that which recurs most frequently throughout this group in every country; but in the tropics other forms appear by their side decorated with a variety of colours, and assuming to some extent the forms and markings of the more brilliant families of butterflies. It is to be observed, however, that in most cases the ground colour of the insect is either white, yellow or black, and even in those exceptional cases in which the wings are entirely red or bluish-grey, the female of the same species, or of one closely allied to it, presents us with the usual simple colours. The rich rufous-brown, which so constantly reappears throughout the great family of the *Nymphalidæ*, is not to be met with in a single instance in the whole range of the present family. The metallic blue of *Morpho* and of the *Lycænidæ*, and the rich green of various shades which occurs in most other groups of butterflies, are also entirely absent. Although the markings are often very beautiful and very varied, well formed ocellated spots (almost universal in the *Satyridæ* and very frequent in the *Nymphalidæ*) never once occur; the only approach to them being the small discoidal ocelli in some species. The form of the wings is generally rounded, rarely angular, and the hind wings are never adorned with spatulate, linear or filiform processes, such as occur frequently in most other groups of butterflies. The nearest approach to a tail in the whole family is found in the genus *Gonepteryx*, and is never much more developed than in our own brimstone butterfly.

It appears, then, that quite independently of structural characters, the *Pieridæ* possess specialities of colour, of marking, and of form of wing, which in their combination mark them out as a natural and somewhat isolated group; and strikingly illustrate the stability of type that sometimes obtains in what we usually deem unimportant and very variable characters. At the same time it is to be noted that in the important structural character of the neuration of the wings, few families exhibit so many modifications. This character serves chiefly to break up the group into three-

and-twenty genera, combined with the form of the antennæ, palpi and anal valves, all of which vary perhaps more than is usual. The form and texture of the wings also seem very subject to modification within certain limits, as is well seen by comparing the delicate elongate forms of *Leptalis* and *Leucophasia* with the strong and compact *Callidryas* and *Colias*; and in colouration no contrast can be greater than that between such genera as *Euterpe* and *Gonepteryx*. Perhaps too there is no family more generally and uniformly distributed over the whole earth. *Pieridæ* inhabit the deserts of Arabia as well as the tropical forests; they sport about the snows of the Himalayas and roam over the icy plains of Siberia. The variety of conditions to which they are subject is therefore as great as can well be conceived, and the considerable generic diversity that exists among them probably indicates a great antiquity for the group, yet the ever fluctuating characters of colour, form and marking have nevertheless their strict limits which they in no case overpass.

The large amount of diversity in the neuration of the wings of the *Pieridæ*, together with the considerable differences in the form of the antennæ and palpi, have led to the establishment of a number of well-marked generic groups. In the "Genera of Diurnal Lepidoptera," published about the year 1847, Mr. Doubleday admitted sixteen genera of *Pieridæ*. Since that time five have been added, most of which were indicated and even named by him as distinct sections of genera. In the present paper I add two, formed out of the old genus *Pieris*, thus raising the total number of genera to twenty-three. These are distributed with tolerable equality through the great zoological divisions of the earth; the South American and Australian regions each having eleven, the African region ten, the varied Indian region (including the western Malay Islands) fifteen, while the Nearctic and Palæarctic regions each possess six genera.

The extreme isolation of the South American continent from the other tropical regions is indicated by its possessing three peculiar genera,—*Euterpe*, *Leptalis* and *Hesperocharis*,—while the Indian region has but two, *Prioneris* and *Dercas*, and the Australian and Palæarctic but one each, *Elodina* and *Leucophasia* respectively. The Nearctic and the Ethiopian regions have no peculiar genera. Only a single genus is universally distributed over the globe, the true *Pieris*. This has representatives both in the polar and the equatoreal regions, on the highest mountains and over the hottest plains. *Callidryas*, *Terias* and *Tachyris* are tropical groups which range round the equatoreal regions of

the earth, but never extend far northward of the tropics. *Colias* and *Anthocharis* on the other hand are Arctic and Alpine, occurring in both continents and in both hemispheres, but rarely extending into tropical lowlands. In most of these widely distributed genera the species also have a wide range, and some specific forms of *Callidryas*, *Tachyris* and *Terias* are almost identically reproduced in the eastern and western tropics. Most of these are insects which roam about cultivated grounds and river banks, and collect in swarms on wet and muddy shores ; while the more restricted species and genera, such as *Euterpe*, *Leptalis*, *Leucophasia*, *Elodina*, *Thyca* and *Eronia*, are inhabitants of woods and forests, and become quickly exterminated by the advance of cultivation.

The following table exhibits the distribution of the genera of *Pieridæ* throughout the six zoological divisions of the earth, with the number of species of each described up to this time.

DISTRIBUTION OF PIERIDÆ.

Total Species.		Neo-tropical.	Ne-arctic	Palæ-arctic.	Ethi-opian.	Indian.	Aus-tralian.
50	EUTERPE	50	—	—	—	—	—
63	LEPTALIS	63	—	—	—	—	—
3	LEUCOPHASIA ..	—	—	3	—	—	—
11	HESPEROCHARIS ..	11	—	—	—	—	—
8	PONTIA	—	—	—	2	3	4
8	ELODINA	—	—	—	—	—	8
120	TERIAS	76	4	—	8	19	21
165	PIERIS	51	11	14	41	31	23
57	THYCA	—	—	—	—	25	30
64	TACHYRIS	5	—	—	3	27	31
9	PRIONERIS	—	—	—	—	9	—
16	ERONIA	—	—	—	7	6	4
3	ZEGRIS	—	—	3	—	—	—
20	ANTHOCHARIS ..	1	6	13	—	—	—
3	NATHALIS	2	1	—	—	—	—
46	CALLOSUNE	—	—	—	44	3	—
44	COLIAS	8	12	24	2	4	1
11	IDMAIS	—	—	—	10	5	—
12	THESTIAS	—	—	—	1	11	2
6	IPHIAS	—	—	—	—	3	4
3	DERCAS	—	—	—	—	3	—
11	GONEPTERYX ..	7	—	4	—	1	—
27	CALLIDRYAS	14	1	—	3	7	9
760	Species	288	35	61	121	157	137
	Genera	11	6	6	10	15	11
	Peculiar genera ..	3	0	1	0	2	1

By a consideration of the facts presented by the distribution of Birds and Mammals, it has been proved that the Malay Archipelago really belongs to two primary zoological divisions of the earth. A line drawn on the east side of the Philippines, curving to the west of Celebes, and passing between the islands of Baly and Lombock, will divide the Indian from the Australian region. Mr. Pascoe however is of opinion that this division will not hold good for insects, as he finds that in *Coleoptera*, and especially in *Longicornia*, New Guinea and the Moluccas have a much greater resemblance to Borneo and Malacca than they have to Australia. If this statement expressed the whole of the facts of the distribution of these insects, it would undoubtedly tend to prove that no very general causes have determined the distribution of organic life, and that we could therefore not hope to mark out such zoological regions of the earth as would be alike useful to the students of every branch of natural history. But I believe that along with this general resemblance of the *Coleoptera* from the two extremities of the Archipelago, there is also a diversity that points to the same division that is so strikingly manifested in the distribution of the higher animals. As examples I may mention the great and interesting Longicorn sub-family of *Tmesisternitæ* confined to the Australian region, although, owing to unfavourable conditions, almost absent from Australia itself. *Cyphogastra*, which Deyrolle considers one of the best marked genera of the family of *Buprestidæ*, and *Eupholus* among the *Curculionidæ*, are similarly restricted; while the metallic *Elateridæ* (*Campsosternus*), the giant *Buprestidæ* of the genus *Catoxantha*, and the splendid phytophagous *Sagræ*, are bounded in the western half of the Archipelago by the line above indicated. Such cases as these (and I feel sure they are much more numerous than is yet believed) would show that even the distribution of the *Coleoptera* is largely influenced by the same general causes which have more powerfully affected other groups; and I believe the cause of the anomaly presented by this order is to be found in the fact, that, in the grand and luxuriant forests which cover the whole Archipelago, almost all the *Coleoptera* are more or less intimately associated with dry or decaying timber. The larvæ of all the most prominent groups are lignivorous, and even the *Carabidæ* mostly dwell under dry or rotten bark. This circumstance is evidently in the highest degree favourable to the diffusion and intermingling of the productions of the different islands, and as the general physical

conditions are almost identical throughout, it is not surprising that an original diversity should have been reduced to an approximate uniformity of type in the two regions.

If this is the true explanation of the phenomenon, we ought to find the distinction of the two regions more marked in those orders and families where there is less probability of involuntary diffusion. The butterflies are almost entirely free from the chance of being carried from island to island by floating timber, but they are at all times subject to be blown great distances by storms and by the strong and changing monsoons. This last cause of diffusion is perhaps quite as powerful as the former one, but it is probable that these insects are not able to establish themselves in new countries with so much certainty as the *Coleoptera*, (as might be expected from the dependence of many of the species on particular plants, which they might not find in the place to which they were carried); for we find many instances in which genera and sections of genera are strictly limited to one-half of the Archipelago or the other. For example, the genera *Mynes* and *Hypocista* are confined strictly to the Australian region, and *Drusilla* is only represented out of that region by one species in Java. To this region also belong the genus *Elodina*, the *Erectheus* and *Priamus* groups of *Papilio*, the *Rachel* group of *Pieris*, the *Celestina* group of *Tachyris*, and the *Mysis* and *Philyra* group of *Thyca*. On the other hand, *Prioneris*, *Dercas* and *Thaumantis* range over the whole Indian region, but do not cross the dividing line; while *Thestias*, the *Coronis* group of *Pieris*, and the genera *Euripus*, *Clerome*, *Amathusia*, *Zeuxidia* and *Discophora*, only pass over the boundary into Celebes, or along the closely linked chain of islands east of Java to Timor. In most of these cases, the same groups that inhabit the Moluccas and New Guinea are found also in Australia, and in some of the islands of the Pacific; while, notwithstanding the similarity of physical conditions, and the narrowness of the dividing seas, they do not pass into Java, Borneo, or the other western islands. These facts go to prove, that notwithstanding the causes favourable to migration and intermixture in the case of insects, yet the isolation of groups dependent on ancient and permanent features in the physical geography of the country may still be very clearly traced; and if so, the primary zoological divisions of the earth, founded on the facts of distribution presented by the higher animals, will be found equally applicable to the objects of the Entomologist's study, since it will enable him

to account for the phenomena of distribution as he finds them to exist.

Zoological divisions of the earth's surface can only be true and useful ones, in so far as they agree with the most ancient and permanent natural barriers to the diffusion of species. Those divisions marked out by diversity of physical character or of climate are less important, because they are necessarily less defined, less general in their effects, and have most likely fluctuated much during short geological epochs. From some points of view the productions of the pampas of Buenos Ayres may differ more from those of the Brazilian forests than do these latter from those of the forests of tropical Africa, yet all will admit that the latter is a primary, while the former is a secondary zoological division. However large the number of groups which can be adduced as common to the equatoreal regions of Africa and America, but which do not extend to the open plains of temperate South America, we should none of us admit the propriety of forming for those groups a new division of the earth, in which the tropics of America and Africa should form a single region. All we can do is to endeavour to account for the anomaly, and try to discover what special causes have affected the distribution of these particular groups in a manner very different from that of almost all the other productions of nature. The case we are considering is one almost exactly analogous to this. The distribution of mammals, of birds, of reptiles, and many facts in the distribution of insects, clearly indicate that the mass of land forming Australia is but a portion of one of the primary zoological divisions of the globe, although in it some of the peculiarities of that division reach their maximum, while others are better exhibited in New Guinea and the Moluccas. The peculiar climate and physical condition of Australia, however, have led to the development of many groups peculiar to it, while the same causes have prevented others from becoming established in it, which have spread rapidly in the damp wooded tropical islands to the north. This localization of forms is carried to a greater extent in insects than in any of the higher animals; and so many extensive and remarkable groups abound in Australia, and are to be seen in every collection from that country and from no other, that the Entomologist may easily be led to ignore the equally striking facts that unite it to the surrounding islands by a strong band of zoological affinity.

The numerical proportion of species in islands and groups of

islands offers some interesting results agreeing with those which have been already obtained for the *Papilionidæ*. Of any single island Java takes the lead in the number of species of *Pieridæ* (35), which is probably owing to its having been more explored than Sumatra or Borneo. Next comes Celebes with 30 species, and further east Ceram with 24 species offers the greatest number, while Timor has but 18. Java and Timor may be considered the islands in the west and east which have the most speciality, and the island of Waigiou, near New Guinea, is another which may be taken as offering a good type of the characteristics of the Papuan fauna; yet these are all surpassed in speciality by Celebes, which is situated between them, as shown by the following statement :—

	Species of *Pieridæ*.		Peculiar Species.
Java....	35	....	13
Timor ..	18	....	7
Waigiou	11	....	2
Celebes	30	....	19

We thus are led to consider the island of Celebes, with one or two small islands adjacent to it, as forming a group equivalent to the much larger groups, which are well characterized by their peculiar faunas, thus :—

Groups of Islands.	Species of *Pieridæ*.	Peculiar Species.	Percentage of peculiar Species.
Indo-Malayan	57	38	66
Philippines	32	19	59
Celebes	30	19	63
Moluccas	46	28	61
Timorese	26	11	42
Papuan	28	20	71

When we consider the very limited area of Celebes, and the position in which it stands, closely surrounded on every side by the other groups, and therefore liable to be colonized from some of them by every ocean current and by every wind that blows, the amount of peculiarity here exhibited is certainly very remarkable, and indicates that its present insular condition dates from a very distant period. This is equally indicated by another class of facts of a more singular nature.

In my paper on the eastern *Papilionidæ* (Trans. Linn. Soc. xxv. 1) I called attention to the curious form of wing that characterizes most of the species of the island of Celebes. In the *Pieridæ* it is almost equally prominent, as may be seen by comparing the following species, nine in number, with the most nearly allied forms from the adjacent districts:—

Pieris eperia,	as compared with	*P. coronis*.
Thyca zebuda,	,, ,,	*T. Descombesi*.
Thyca Rosenbergii,	,, ,,	*T. hyparete*.
Tachyris Hombronii,	,, ,,	*T. lyncida*.
Tachyris lycaste,	,, ,,	*T. lyncida*.
Tachyris zarinda,	,, ,,	*T. nero*.
Tachyris ithome,	,, ,,	*T. nephele*.
Eronia tritæa,	,, ,,	any other species.
Iphias glaucippe,	,, ,,	*I. glaucippe* (Java var.).

In all these cases, comprising a large proportion of the *Pieridæ* peculiar to Celebes, the species of that island have the anterior wings either more elongated or more acute, or the costa much more abruptly curved near the base, than in the allied species from any of the adjacent islands. Exactly the same peculiarity was found in almost every species of *Papilio*, and is to be noticed also in many of the *Nymphalidæ*. I am not aware that any similar case has yet been adduced of a peculiarity of form running through several distinct families, and characterizing a single island only, or any equally limited district. The nearest approach to it is the apterous condition of many *Coleoptera* of usually winged genera in Madeira, conjoined with the rather fuller development of the wings in some other species, whose habits render flight essential to them. We are all acquainted with Mr. Darwin's beautiful explanation of these facts, on the principle of the preservation of useful variations, and we cannot doubt that the same principle has acted in the case of the Celebes butterflies, although from our ignorance of all the physical and biological peculiarities of that island we are not able to trace the process with so much certainty as in the other case. The whole fauna of Celebes is isolated and fragmentary, and indicates a very ancient origin and much extinction of species; and it may well be that the conditions which once rendered this peculiarity an advantageous one no longer exist. We must ever remember that the present condition of a fauna is but the resultant of an immense

variety of causes and changes, organic and inorganic, acting and reacting throughout all preceding ages. It is, therefore, no objection to a theory that it does not explain everything, but rather the contrary. A true theory will certainly enable us to understand many of the phenomena of life, but owing to our necessarily imperfect knowledge of past causes and events, there must always remain complicated knots that we cannot disentangle, and dark mysteries on which we can throw but a straggling ray of light.

The Eastern *Pieridæ* present us with none of those wonderful cases of mimicry which characterize the American genus *Leptalis*, and whose perfection enabled Mr. Bates to arrive at a satisfactory explanation of the phenomenon. The comparatively small range of colour and marking in the genera *Euplœa* and *Danais* offer few facilities for that first accidental approximation which is the necessary groundwork for the production of a more perfect resemblance. Nevertheless there are a few interesting cases which I think must come under the head of mimicry. The first is that of the Eastern species of *Eronia*, the females of which all approximate, more or less, to the markings of the genus *Danais*. The particular circumstance that makes it probable that this is a true case of mimicry is, that in several species a variety of the female occurs with the base of the hind wings bright yellow, exactly corresponding to the colour of other species of *Danais*. Thus in Malacca and Sumatra the ordinary dark female of *Eronia valeria* mimics *Danais similis*, while the yellow variety is like *Danais philomela*. In the Moluccas and New Guinea the dark females of *Eronia argolis* and *Eronia iobœa* are like *Danais sobrina* and *Danais meganira*, while the yellow varieties resemble *Danais cleona* and *D. gloriola*.

There seems, however, to be a group within the family of *Pieridæ* itself which is the subject of mimicry. This is the genus *Thyca*, which comprises the most gay and variegated species, and is very abundant both in species and individuals, which are almost entirely confined to the forests, and have a very slow and weak mode of flight. They are, therefore, singularly parallel to the South American *Heliconiidæ*, and probably like them have some special protection which renders escape by flight less necessary to them than it is to the species of allied genera. That this is the case is rendered more probable by the fact that I can point out four species of other genera that resemble them most curiously in details of colouring: *Prioneris thestylis* has the under surface

marked and coloured almost exactly as in *Thyca belladonna*, and the female resembles the same insect almost as much on the upper surface; both are found at Darjeeling. *Picris sitana*, a species peculiar to Ceylon, wonderfully resembles on the underside the common *Thyca eucharis* which ranges all over India. *Prioneris cornelia* of Borneo, as figured by Vollenhoven, is so like *Thyca singhapura* that I at first thought it might be a variety of that species till I found by the description that it was structurally different. Lastly, *Pieris læta* of Timor departs so much from the style of colouring of its allies and approaches so nearly to that of *Thyca belisama* of Java, that I should almost look for an ally of the last species to be discovered in Timor to serve as its pattern. We know so little of that island at present, and so many species having the same distribution as *T. belisama* extend to Timor, or are represented there by an allied form, that we might, quite independently of any connexion with *P. læta*, expect such a species to be found there. On the whole, then, I think we have sufficient facts to show that phenomena of mimicry, small in amount but of the same character with those that are so fully developed in many other groups, do occur among the *Pieridæ;* and this is just what we might expect sometimes to meet with in nature, for whenever a group of species possesses any amount of special protection, even if it only leads some few of their enemies to avoid them, it will then become advantageous for the species of other groups to be mistaken for these, and any accidental variations that may tend to bring about a resemblance will generation after generation survive, till further imitation ceases to be useful or is overbalanced by some concurrent disadvantage.

In a few cases what appears to be a dimorphic female occurs; the difference being however one of colour only.. In *Tachyris paulina*, the female (*neombo*, Boisd.) is either white with a pearly gloss beneath, or yellow with the underside rich ochre. In an insect which I consider with some hesitation to be the female of *Tachyris celestina*, a pure white and a rich yellow variety also occur. In *Tachyris cycinna* both sexes are either greenish sulphur-yellow or rich chrome-orange. In *Tachyris zarinda* the males are either clear reddish-orange or deep burnt crimson. In none of these cases have intermediate forms ever been found, and though we have no direct proof in any case that the two forms are continually produced from a single pair of individuals, there is every reason from analogy to suppose that such is the fact. It is

interesting to find, however, that dimorphism, which is so strikingly developed among the *Papilionidæ*, should be represented in a smaller degree in the closely allied group.

A very curious case of close resemblance occurs between two other insects, *Pieris cynis* and *Tachyris illana*, which well illustrates the difference between resemblance produced by the mere recurrence of a general type of colouring and that which is the result of the preservation of useful variations, and which is termed "mimicry." These two butterflies are nearly of the same size, of a white colour with a broad apical black border similarly scalloped within, and on the hind wings both have a similarly-formed sub-macular dusky border. They differ, however, in the proportion of the discoidal cells and in the structure of the antennæ and anal valves, so as to come into distinct genera, and they are not found together, one being an inhabitant of the Malay Peninsula, the other of the Philippine Islands. If the markings of these insects had been more varied and peculiar, it would have furnished one case for the opponents of the explanation of "mimicry" by natural selection. As it is, however, it well illustrates the exception that proves the rule. By far the most general type of colouring in the *Pieridæ*, and which recurs in hundreds of species, is a white ground with a black outer border, always most developed at the apex of the upper wings, and very frequently less marked on the hind wings. It is not, therefore, surprising that among the many slight modifications of this commonest and most simple type of colouration, two species belonging to different genera should closely resemble each other externally. It is a case that exactly corresponds to the very common type of colouration among the *Carabidæ*,—black elytra with two or four rufous spots,—which recurs so frequently in many distinct genera of that family. Such cases serve to show us how completely inadequate is the law of "reversion to a common type" to explain the resemblance, through all the minute details of a complicated and unusual style of marking and colouration, which is often found in cases of "mimicry."

Although the differences of neuration offer excellent characters for the establishment of genera, it is of too uncertain and variable a nature to serve as a complete test of their affinities to each other. I have therefore endeavoured to arrange the genera in a natural series rather by the form of the antennæ, which seems less liable to sudden and abnormal variations, and by other general characters; commencing as usual with the long and slender antennæ of the weak-flying *Leptalis* and *Euterpe*, and ending with the thick

antennæ of the strong-winged *Callidryas*. The chief difference from the usual arrangement is in placing *Terias* before *Pieris* and after Felder's new genus *Elodina*, which has hitherto been divided between *Pieris* and *Terias*.

The portion of my work to which I have devoted most time and attention has been the proper determination of the sexes in many species of *Pieris* which have hitherto never been properly located, and the separation of the heterogeneous mass of species in that genus into natural groups. As a first step I went carefully through the whole of my collection and determined the sex of every specimen. This was a matter of some difficulty, as there are no prominent sexual characters in the group, and I soon found that differences of colouration and in the form of the wings were very deceptive and had led to many errors. A little examination however soon convinced me that the presence of anal valves in the male, almost as well marked as in the genus *Papilio*, offered a certain test of sex in *Pieris* and its allies, and as my collection contains good series of many of the species from different localities, I was soon led to satisfactory results in many cases. At the same time I made the important observation that an extensive series of species, evidently all closely allied, were characterized by large tufts of stiff hairs or bristles springing from the base of each anal valve and often extending beyond their extremity. Both African and American species closely allied in form and colouration had the same character, which moreover was not found to exist in any other group of *Pieridæ*. The character is not one which has been hitherto used in characterizing genera, but as its presence is in every case easily ascertained and it groups together species which are evidently closely allied, it is probably of physiological importance; and as it enables us to break up into natural divisions a very unwieldy mass of species, I have determined to form the group so characterized into a genus which I term *Tachyris*, as they have most of them pointed wings and a very rapid flight. *Pieris panda*, Godt., and *Pieris nero*, Fab., may be considered the types.

The genus *Thyca*, established by Wallengren for the species of *Pieris* which have only one precellular subcostal nervule (and previously indicated as a section by Doubleday), is not adopted by Vollenhoven in his Monograph of Malayan *Pieridæ*, because he thinks it conflicts too much with other affinities. A careful examination of all the specimens having this character has led me to the opposite conclusion, since the fifty-seven species I place in the

genus *Thyca* form, with very few exceptions, a series whose affinities for each other are very clearly marked. There remains another small group of species which do not harmonize well with any of the other forms, and which have been generally scattered widely through the genus. The bond of affinity which brings them together is to be found in the costal margin of the fore wings in the males being distinctly toothed along its entire length, forming a saw-like edge often visible to the naked eye. The species which possess this peculiarity, now nine in number, are found to agree closely in every other point of general structure as well as in the form and texture of the wings and in their system of colouration; and I am informed by Mr. Watson that they have another striking peculiarity in being quite devoid of the scales termed plumules, which are present in the males of all other members of the old genus *Pieris*. Such a combination of characters appears to me to indicate generic difference, and I accordingly propose to form for them the genus *Prioneris*, of which the type will be the *Pieris thestylis*, Doubl.

There still remains in the genus *Pieris*, of which we may consider our *P. brassicæ* to be the type, a considerable number of species which agree very closely in structure, though they will range under several types of form and colouration. Even from these, however, two genera have been separated, neither of which I here admit. The genus *Aporia*, Hubn., has been adopted by some European Entomologists for *Pieris cratægi* and its allies, and it undoubtedly is a very distinct form from its European congeners. But when we see that, by means of *P. hippia*, Men., and *P. soracta*, Moore, it is allied to such different-looking insects as *P. agathon*, Gray, and *P. nabellica*, Boisd., which evidently form the fragments of an extensive natural group of species not differing in any important structural characters from the true *Pieris*, we comprehend that it is more by isolation and a specialised facies than by any generic peculiarity that these insects differ from their nearest allies. The only character that can be so considered, the short palpi of *P. cratægi*, is not constant in the allied forms. These constitute an Alpine and Arctic group of *Pieris*, and our common species is a straggler beyond the range of its closest relations.

Wallengren has separated the African *Pieris severina*, Godt., and its allies, under the name of *Pinacopteryx*, but the generic character he has given would apply to many other species. The only character by which these seem to me to differ from true

Pieris is in having the anal valves of the male more or less spined. The same character, which is not mentioned by Wallengren, is found in *P. mesentina*, Godt., *P. coronea*, Cram., and allies; the South American *P. monuste*, *P. ausia*, and others, also have it, and it reaches its maximum in *P. lycimnia*, Cram., in which the long acute curved spines are very conspicuous; but the character is quite an isolated one and varies too much in degree and is too difficult of determination in many cases to serve as a chief generic character. I therefore keep these species as a section of true *Pieris*.

My divisions of the genus *Pieris* of authors may be tabulated as follows:—

A. One branch of the subcostal nervure before the end of the cell	Thyca (2).
AA. Two branches of the subcostal nervure before the end of the cell.	
B. Males with tufts of hairs or bristles at the anal valves	Tachyris (3).
BB. Males with the anal valves bare.	
C. Males with the costa serrated	Prioneris (4).
CC. Males with the costa smooth..	Pieris (1).

Of the external affinities of the *Pieridæ* it is impossible to say much. They have no direct relation to any other family than the *Papilionidæ*, and even with those there is no good connecting link. The European genera *Zegris* and *Thais* are perhaps the nearest, since they not only offer some approximation in the structural characters of the imago, but agree also to some extent in their metamorphoses, the larvæ of both genera enclosing themselves in a delicate web.

In the following list of species I have endeavoured to arrange them in a natural series, and have described the new forms chiefly by comparison with well known types. I have not thought it necessary to burden the Catalogue with many synonyms, but have in most cases referred only to Boisduval's "Spécies Général des Lépidoptères" and to Vollenhoven's Monograph for the species mentioned by those writers, except in cases in which there has been confusion of sexes, varieties, or general synonymy. To avoid confusion between two works with almost identical titles, I quote the first (quarto) Catalogue of the East India Company's Museum, published in 1829, as, "Horsfield, Cat. Lep. E. I. C.;" and the second (octavo) Catalogue of 1857, as, "Moore, Cat. Lep. E. I. C." To make the list of described species in the

family as complete as possible I have introduced all those described by Boisduval in the "Bulletin" of the French Entomological Society, by Lucas in the "Revue et Magasin de Zoologie," and by Felder in the "Voyage of the Novara," although I have not been able to examine several of them, and have had to some extent to guess at their true position and affinities.

I have drawn out a table (inserted at the end of the Catalogue) showing the distribution of each species, as far as yet known, in the island groups and regions, and in which I have linked together by brackets the closely allied species which may be considered as "geographical forms" or "local varieties" by many Entomologists. Other tables show the distribution of the genera in a similar manner.

For convenience of reference I add a list of the new species described, and of the old ones whose names have been altered.

New Species.

1. *Pontia dione*, n. s.
2. *Elodina bouruensis*, n. s.
3. *Elodina signata*, n. s.
4. *Terias australis*, n. s.
5. *Terias ingana*, n. s.
6. *Terias sinta*, n. s.
7. *Terias rubella*, n. s.
8. *Terias fimbriata*, n. s.
9. *Terias silhetana*, n. s.
10. *Terias diversa*, n. s.
11. *Terias celebensis*, n. s.
12. *Terias virgo*, n. s.
13. *Pieris mentes*, n. s.
14. *Pieris narses*, n. s.
15. *Pieris jael*, n. s.
16. *Pieris naomi*, n. s.
17. *Pieris tamar*, n. s.
18. *Pieris corva*, n. s.
19. *Pieris copia*, n. s.
20. *Pieris amba*, n. s.
21. *Thyca pandemia*, n. s.
22. *Thyca parthenope*, n. s.
23. *Thyca ninus*, n. s.
24. *Thyca singhapura*, n. s.
25. *Thyca ennia*, n. s.
26. *Thyca philotis*, n. s.
27. *Thyca echo*, n. s.
28. *Thyca hippodamia*, n. s.
29. *Thyca orphne*, n. s.
30. *Tachyris clavis*, n. s.
31. *Tachyris abnormis*, n. s.
32. *Tachyris urania*, n. s.
33. *Tachyris amarella*, n. s.
34. *Tachyris cynisca*, n. s.
35. *Tachyris panthea*, n. s.
36. *Tachyris corinna*, n. s.
37. *Tachyris galba*, n. s.
38. *Tachyris bouruensis*, n. s.
39. *Prioneris Vollenhovii*, n. s.
40. *Idmais fulvia*, n. s.
41. *Thestias venatrix*, n. s.
42. *Thestias pirenassa*, n. s.
43. *Thestias dissimilis*, n. s.
44. *Iphias borneensis*, n. s.
45. *Callidryas phlegeus*, n. s.

New Names given to described Species.

Thyca pyramus = *Pieris thisbe*, Gray (*nec* Cramer).
Tachyris alope = *Pieris amasene*, Boisd. (*nec* Cramer).
Tachyris Lucasii = *Pieris pandione*, Boisd. (*nec* Hübner).
Thestias Vollenhovii = *Thestias balice*, Voll. (*nec* Boisd.)

NAMES ALTERED TO OTHERS BEFORE IN USE.

NAMES REJECTED.		NAMES ADOPTED.
Pieris pallene, Hewits.	=	*Elodina angulipennis*, Lucas.
Terias zama, Feld.	=	*Terias zita*, Feld. ♀.
Terias tondana, Feld.	=	*Terias tominia*, Voll.
Pieris Wallaceana, Feld.	=	*Pieris rachel*, Boisd. ♀.
Pieris perithea, Feld.	=	*Pieris nabis*, Lucas. ♀.
Pieris Descombesii, Voll. (*nec* Boisd.)	=	*Thyca zebuda*, Hewits.
Pieris Lorquinii, Feld.	=	*Thyca Rosenbergii*, Voll.
Pieris hagar, Voll.	=	*Tachyris cardena*, Hewits.
Papilio zelmira, Cram.	=	*Tachyris nerissa*, Fab. ♀.
Pieris eleonora, Boisd.	=	*Tachyris hippo*, Cram. ♂.
Pieris cilla, Feld.	=	*Tachyris ada*, Cram. var.
Pieris sulphurea, Voll.	=	*Tachyris panda*, Godt. ♀.
Pieris neombo, Boisd.	=	*Tachyris paulina*, Cram. ♀ var.
Pieris albina, Boisd.	=	*Tachyris paulina*, Cram. ♂.
Pieris galene, Feld.	=	*Tachyris paulina*, Cram. ♂ var.
Pieris darada, Feld.	=	*Tachyris paulina*, Cram. ♂ var.
Pieris melania, Boisd. (*nec* Fab.)	=	*Tachyris ega*, Boisd. ♀.
Pieris zoe, Voll.	=	*Tachyris Jacquinotii*, Lucas.
Pieris agave, Feld.	=	*Tachyris Jacquinotii*, Lucas.
Pieris paulina, Boisd. (*nec* Cram.)	=	*Tachyris leptis*, Feld.
Pieris ocina, Hewits.	=	*Tachyris cyeiuna*, Hewits ♀.
Pieris liberia, Voll. (*nec* Cramer).	=	*Tachyris eliada*, Hewits.
Pieris ægis, Feld.	=	*Tachyris illana*, Feld. ♀.
Pieris Helferi, Feld.	=	*Prioneris clemanthe*, Doubl.
Eronia gæa, Feld.	=	*Eronia hippia*, Fab.
Iphias Felderi, Voll.	=	*Iphias sulphurea*, Wallace.
Gonepteryx urania, Butler	=	*Dercas Wallichii*, Doubl.

SPECIES OMITTED AS UNRECOGNIZABLE.

Papilio perimale, Donovan. (See *Pieris narses.*)
Papilio clytie, Donovan. (See *Picris teutonia.*)
Papilio melania, Fab. (See *Tachyris ega.*)

PIERIDÆ.

PONTIA, Boisd.

A small group of delicate eastern and tropical butterflies, generally placed next *Leucophasia*, with which, however, it seems to have no near affinity. These insects fly about slowly in woods and shady places, keeping near the ground and often settling on leaves and flowers. The species are all very closely allied to each other. They are absent from the Moluccas and New Guinea, but extend through the islands east of Java to Timor, and thence into North West Australia.

1. *Pontia nina*, Fabricius.

Papilio nina, Fab. Ent. Syst. III. i. p. 194. *Pontia nina*, Bd. Sp. Gén. p. 431 ; Voll. Mon. Pier. p. 3.

Hab.—Malacca, Sumatra, Borneo, Java, Baly, Flores, Timor (Coll. Wall.) ; Philippine Is. (B. M.) ; India, Ceylon (B. M.).

This species varies but little throughout this extensive range. The specimens from the Philippine Islands are very large.

2. *Pontia Crookera*, MacLeay.

Pontia Crookera, MacLeay, King's Survey, p. 458 ; Bd. Sp. Gén. p. 431.

Hab.—West Australia.

3. *Pontia niobe*, Wallace.

Pontia niobe, Wall. Proc. Zool. Soc. 1866, p. 357.

Hab.—Formosa (Coll. Wall. *ex* Swinhoe).

Near *P. nina*, but a sufficiently distinct local modification.

4. *Pontia dione*, n. sp.

Much larger than *P. nina*, discoidal spot similar but larger, apical spot wanting, apical and basal margins somewhat dusky. Beneath with the irrorations browner than in *P. nina*, and extending more over the upper wings, which have an apical dusky patch. Antennæ long, tipped with dusky orange.

Expense 2—2⅛ inches.

Hab.—Macassar (Coll. Wall.).

5. *Pontia medusa*, Cramer.

Papilio medusa, Cr. 150 F. *Pontia medusa*, Bd. Sp. Gén. 433.

Hab.—Bengal.

A large and finely coloured species according to Cramer's figure.

6. *Pontia lignea*, Vollenhoven.

Pontia lignea, Voll. Mon. Pier. p. 4, pl. 2, f. 1 a, 1 b, ♂.

♀. Above dusky white, costal margin dusky irrorated ; a discoidal spot as in *P. nina*, and a small indistinct one above it within the apex ; hind wings with a narrow dusky margin. Beneath dusky and thickly irrorated, with a greenish tinge on the apex of

the upper and over the whole surface of the hind wings; discoidal spot on uppers dusky black. Antennæ orange-tipped.

Expanse $1\frac{5}{6}$ inch; wings more elongate than in *P. nina*.

Hab.—Menado, Celebes (Coll. Wall.).

A very distinct species, with more elongate wings than its allies.

ELODINA, Felder.

Voy. Novara, Lep. p. 215.

This is a group of small delicate white and black butterflies, which have a peculiar type of neuration, there being only one subcostal nervule before the end of the cell, and the lower radial is situated so high up as to appear like a branch of the subcostal at the end of the cell. The type has been considered a *Terias*, and others have been placed in the genus *Pieris*. They seem allied to both *Pontia* and *Terias*, and are the only well marked group of *Pieridæ* which are entirely confined to the Australian region. The species yet known are all very closely allied to each other.

1. *Elodina egnatia*, Godart.

Pieris egnatia, Godt. Enc. Méth. ix. p. 138. *Terias egnatia*, Bd. Sp. Gén. p. 678.

Hab.—N. Celebes (Wall.); Amboina (Bd.); Aru Islands (Wall.); Timor (Wall.)

The Timor specimen is smaller and has the dusky mark beneath the uppers reduced to a subquadrate spot, but I do not like to separate it.

2. *Elodina hypatia*, Felder.

Elodina hypatia, Feld. Voy. Novara, p. 216.

Hab.—New Guinea (Coll. Wall.).

Distinguished by the upper wings having beneath a black apex enclosing a white stripe; but in some specimens these markings are almost or quite obsolete, and they then only differ by the costa above being more broadly dusky at the base.

3. *Elodina therasia*, Felder.

Elodina therasia, Feld. Voy. Novara, p. 215.

Hab.—Gilolo.

"Above, like *E. egnatia*; beneath, has the apex beyond the dark patch dusky." I have not seen this species.

4. *Elodina bouruensis*, n. sp.

Above, has the costal and outer margins broadly black with a dilated apex, and the base broadly dusky; beneath, a curved blackish band across the apex is continued along to near the base of the costal margin; the rest as in *E. egnatia*.

Hab.—Bouru (Coll. Wall.).

A sufficiently distinct species, if any of the forms of *E. egnatia* are to be separated.

5. *Elodina angulipennis*, Lucas.

Terias angulipennis, Lucas, Rev. et Mag. de Zool. 1852, p. 431.
Pieris pallene, Hew. Ex. Butt. vol. i. Pieris II. f. 8, 9.

Hab.—Australia.

Very distinct by the band of spots across the hind wings beneath.

6. *Elodina padusa*, Hewitson.

Pieris padusa, Hew. Ex. Butt. vol. i. Pieris II. f. 10, 11.

Hab.—Australia.

Comes near *E. egnatia*, from which it differs chiefly in form.

7. *Elodina parthia*, Hewitson.

Pieris parthia, Hew. Ex. Butt. vol. i. Pieris II. f. 12, 13.

Hab.—Australia.

8. *Elodina signata*, n. sp.

Above: upper wings black, with a somewhat irregular ovate central white patch; lower wings white, inner margin with a black border, outer margin finely dusky and with the ends of the nervures black.

Beneath: the apex of the uppers white, the ovate patch yellowish, the base slightly dusky; lower wings white, dusky at the base, with a transverse band of dusky lunules between the cell and the outer margin. In another specimen, without abdomen (? ♂), the lower wings immaculate beneath.

Expanse of wings 1½ inch.

Hab.—New Caledonia (B. Mus).

Terias, Swainson.

These small white and yellow butterflies are generally distributed throughout the tropics, where they frequent gardens and plantations and the skirts of the forests rather than their deeper recesses. They also assemble on the margins of streams and on the sea beach. These habits lead to their being frequently carried off by winds, and it is thus perhaps that some of the species have so wide a range and offer such perplexing variations. From their great similarity, and their commonness in the tropics, they have been somewhat neglected, and we do not yet possess materials sufficient to determine the limits of many of the forms. I have described a few new species which appear to be sufficiently distinct, but the whole genus is at present in a very unsatisfactory condition.

1. *Terias harina*, Horsfield.

Terias harina, Horsf. Cat. Lep. E. I. C. p. 137; Bd. Sp. Gén. p. 668.

Hab.—India, Malacca, Java, Borneo, Philippines, Celebes, Batchian, Ceram, Aru Islands (Coll. Wall.).

This species varies little; the specimens from the Moluccas have the apical border narrower than in those from the western islands. The female is much paler and sometimes has a broader apical border. The Philippine form has a narrow border to the hind wings, and might almost be considered a distinct species.

2. *Terias angulata*, Wallengren.

Terias angulata, Walleng. Wien. Ent. Monats. iv. p. 34.

"Alis posticis angulatis; omnibus albis, margine exteriore late nigro, introrsum undulato, maculaque flava ad angulum anticum alarum posticarum notato, basi in parte superiore alarum anticarum pone cellulam albo-flavescente." (Walleng.)

Hab.—Sandwich Islands.

3. *Terias læta*, Boisduval.

Terias læta, Bd. Sp. Gén. p. 674.

Hab.—N.W. India, Afghanistan, Nepaul, Bhotan (B. M.).

4. *Terias venata*, Moore.

Terias venata, Moore, Cat. Lep. E. I. C. p. 65, pl. IIa. f. 2, ♂.

Hab.—N. W. India.

The female scarcely differs, except in being more dusky.

5. *Terias santana*, Felder.

Terias santana, Feld. Voy. Novara, p. 211.

Hab.—Bengal, Philippine Islands.

This appears scarcely to differ from *P. venata*, Moore. The female described by Dr. Felder seems undoubtedly to be my *P. vagans*. I was about to describe the Philippine species as distinct, but find that it agrees minutely with Dr. Felder's description. It may nevertheless not be the same. The wings are rather less acute than in *T. venata*, and the fringe is narrower and more dusky.

6. *Terias vagans*, Wallace.

Terias vagans, Wall. Proc. Zool. Soc. 1866, p. 357; Feld. Voy. Novara, p. 211, ♀ (*T. santana*)?.

Hab.—N. India, Formosa (Coll. Wall. *ex* Swinhoe).

7. *Terias smilax*, Donovan.

Papilio smilax, Don. Ins. N. Holl. pl. 20. *Terias smilax*, Bd. Sp. Gén. p. 660.

Hab.—Australia, Moreton Bay (Coll. Wall.).

Closely allied to *T. vagans* and *T. venata*.

8. *Terias herla*, MacLeay.

Pieris herla, MacLeay, King's Survey, p. 460; Bd. Sp. Gén. p. 660.

Hab.—Australia (Coll. Wall.).

A very distinct species by its reddish under surface; the specimens vary somewhat in outline, some having the apex more rounded, and the black border terminating less abruptly, but they can hardly be considered distinct. One specimen in the B. Mus. has almost lost the red tint of the under surface.

9. *Terias australis*, n. sp.

Form and size of *T. smilax*, but the wings more elongate, fringe yellow instead of red.

Above: upper wings as in *T. smilax*, but the border reaches the outer angle. Lower wings with a black border, scalloped

within, widest at the outer angle and vanishing before reaching the anal angle.

Beneath: rich yellow; upper wings with two minute discoidal dots, and marginal dots as in *T. smilax;* lower wings scantily speckled with black scales, a discoidal and a submarginal small black spot towards the base, and very faint transverse dusky bands as in *T. smilax.*

Hab.—Australia, Moreton Bay (B. M.).

10. *Terias ingana*, n. sp.

The second subcostal branch and the disco-cellular nervure of the lower wing arising close together as in *T. herla.* Wings elongate, uppers with a black border at the apex not quite reaching the outer angle, above which are two rounded indentations; lower wings with a row of marginal dots, sometimes connected by a narrow black edging; a black mark sometimes appears at the end of the cell. Beneath: upper wings with a black discoidal spot and minute marginal dots; lower wings with discoidal and basal spot as in *T. australis*, sometimes another within the cell, and a transverse curved dusky band, sometimes very distinct, at others almost obsolete. Black points at the ends of the nervures. Fringe of the upper wings dusky, of the lower yellow. Female paler.

Expanse of wings 1½ inch.

Hab.—Australia, Sidney (B. M.).

11. *Terias sinta*, n. sp.

Form of *T. smilax;* border of upper wings narrower, entire and slightly scalloped within, not reaching the outer angle; lower wings with minute dots at the end of the nervures. Beneath: uppers with a very faint discoidal spot; lower wings faintly black-speckled, and with spots and band as in *T. australis*, more or less faintly indicated. Fringe yellow; no black marginal dots beneath.

Expanse 1½ inch.

Hab.—Australia, Moreton Bay (B. M.).

12. *Terias senna*, Felder.

Terias senna, Feld. Voy. Novara, p. 212.

Hab.—Malacca.

13. *Terias drona*, Horsfield.

Terias drona, Horsf. Cat. Lep. E. I. C. p. 137, t. 1, f. 13; Bd. Sp. Gén. p. 675.

Hab.—Java, Flores, Timor, Bouru, Ternate, Celebes, Ceram (Coll. Wall.).

14. *Terias lerna*, Felder.

Terias lerna, Feld. Sitz. Akad. d. Wiss. 1860, p. 449; Voy. Novara, p. 212.

Hab.—Amboina, Australia (Wall.); India (Feld.).

This species is exactly like *T. drona* above, but differs considerably on the under surface.

15. *Terias rubella*, n. sp.

Above, like *T. drona*, but the wings are shorter, and the outer margin of the uppers slightly concave, the black border of the hind wings narrower, toothed at each nervure, not reaching the anal angle, the fringe and two spots on the costa near the apex brick-red. Beneath, marked like *T. drona*, but the whole costal margin and the fringe clear brick-red. Club of antennæ beneath, palpi and head also red.

Expanse of wings $1\frac{1}{4}$ inch.

Hab.—Calcutta (Coll. Moore), Darjeeling, China (B. M.).

This pretty little species is quite distinct from *T. drona* in form, although closely resembling it in markings.

16. *Terias fimbriata*, n. sp.

Form of *T. hecabe*. Above, clear yellow; a black border at the extremity of the uppers from the end of the first subcostal nervule to the outer angle, pretty regularly toothed within and dilated into a small apical patch, in which is a dusky indentation. The lower wings have only a black spot at the end of each nervule; fringe yellow. Beneath: the whole surface is speckled with minute black dots, a small spot at the end of each nervure, and three or four on the costal margin; on the uppers a brown lunule at the end of the cell, a zigzag mark in the middle, and a smaller one near the base, and a line of three or four reddish spots between the cell and the apex; lower wings with a large brown discoidal

lunule, three small ocelli near the base, and a faint irregular submarginal band of brown spots. Head and thorax dusky.

Expanse of wings $1\frac{7}{8}$ inch.

Hab.—Mussooree, N. India (Coll. Moore).

Distinguished from *T. blanda* by its costa not black-margined, the yellow fringe, and other characters.

17. *Terias silhetana*, n. sp.

Above, clear yellow; a black border at the extremity of the upper wing, commencing abruptly between the first and second subcostal nervules, and reaching the outer angle, not regular within and dilated into a quadrate patch at the apex; fringe black. Lower wings with a very narrow black edge, slightly dilated at the extremity of the nervures and with a yellow fringe. Beneath, with blackish-brown markings, disposed nearly as in *T. fimbriata*, but with a rusty-brown quadrangular patch at the apex; surface sparely dotted with dusky scales, fringe of both wings yellow. Head and thorax dusky-yellow.

Expanse of wings $1\frac{3}{4}$ inch.

Hab.—Silhet (Coll. Moore).

A well-marked species, although closely allied to *T. sari* and *T. blanda*.

18. *Terias blanda*, Boisduval.

Terias blanda, Bd. Sp. Gén. p. 672.

Hab.—Bouru, Amboina, Batchian, New Guinea (Wall.); Java (Voll.); China, N. India (Moore).

The black border is not quite *regularly* toothed or sinuated within as Boisduval describes it, yet I believe this must be his species. The Indian specimen agrees, but has the border of the hind wings very narrow.

19. *Terias phanospila*, Felder.

Terias phanospila, Feld. Voy. Novara, p. 209.

Hab.—Java.

20. *Terias diversa*, n. sp.

Male.—Colour rich yellow; markings intermediate between *T. blanda* and *T. hecabe*.

Female.—White; base somewhat dusky, markings as in the male.

Hab.—Bouru, Ternate, Ceram, Goram, Aru Islands, New Guinea, Philippine Islands (Wall.).

The males often hardly differ from *T. hecabe*, but the remarkable difference in the colour of the females seems to render it necessary to separate the form. A species from the Philippine Islands sent me as *T. alitha* agrees well with this species.

21. *Terias hecabe*, Linnæus.

Papilio hecabe, Linn. S. N. ii. p. 763. *Terias hecabe*, Bd. Sp. Gén. p. 669.

Hab.—India, Sumatra, Borneo, Java (Wall.); Australia (B. M.).

Var. *suava*, Boisd. *l. c.*

Hab.—Sumatra, Flores, Timor, Matabello (Wall.); India (Bd.); China (B. M.).

The varieties of this species are infinite over its extensive range, and cannot be profitably separated.

22. *Terias sinensis*, Lucas.

Terias sinensis, Luc. Rev. et Mag. Zool. 1852, p. 429.

"Near *T. hecabe*. Wings pale yellow; uppers with a border larger and less black than *hecabe*, toothed within, with the sinus less well formed. Border returning partly up the inner margin as in *T. tilaha*. Border of lower wings wider than in *hecabe* and *tilaha*. Beneath paler than above, with a marginal row of small black dots, indistinct near the fringe, otherwise without spots or markings. In the ♀ the inner margin is not black-bordered, and the margin of the lower wings is narrower." (Lucas.)

Hab.—China.

23. *Terias nicobariensis*, Felder.

Terias nicobariensis, Feld. Verh. z.-b. Gesell. Wien. 1862, p. 480.

Hab.—Nicobar Islands.

"Near *T. hecabe*."

24. *Terias anemone*, Felder.

Terias anemone, Feld. Wien. Ent. Monats. vi. p. 24.

Hab.—Ningpo, China.

"Near *T. hecabe*."

25. *Terias sari*, Horsfield.

Terias sari, Horsf. Cat. Lep. E. I. C. p. 136.

Hab.—Malacca, Sumatra, Java (Wall.); Borneo (Moore); Flores, Timor, Australia (Wall.).

A specimen from Queensland hardly differs except in having the border of the hind wings rather narrower, and the apical patch beneath smaller; and another somewhat intermediate form occurs at Flores and Timor.

26. *Terias eumide*, Felder.

Terias eumide, Feld. Voy. Novara, p. 214, ♂.

The female differs by being of a paler yellow, and sometimes much irrorated with dusky.

Hab.—N. Celebes, Sulla Islands (Wall.). Var. Batchian (Wall.).

This is intermediate between *T. hecabe* and *T. tilaha*. The Batchian variety has the border less abruptly sinuated.

27. *Terias tilaha*, Horsfield.

Terias tilaha, Horsf. Cat. Lep. E. I. C. p. 136; Bd. Sp. Gén. p. 668; Voll. Mon. Pier. p. 65 (pt.).

Hab.—Java (Wall.); Borneo (Voll.).

28. *Terias Lorquinii*, Felder.

Terias Lorquinii, Feld. Voy. Novara, p. 209; Voll. Mon. Pier. p. 65 (*T. tilaha*, pt.).

Hab.—Celebes, Macassar and Menado (Wall.).

A beautiful species, distinct from *T. tilaha* of the western islands.

29. *Terias alitha*, Felder.

Terias alitha, Feld. Wien. Ent. Monats. vi. p. 289.

Hab.—Mindanao (Philippines).

Closely allied to *T. Lorquinii*.

30. *Terias zita*, Felder.

Terias zita, Feld. Voy. Novara, p. 210, ♂.

T. zama, Feld. l. c. ♀.

Hab.—Celebes, Menado (Coll. Wall.).

This species is hardly distinct from *T. Lorquinii*, as my Collection shows that great variation occurs in this group of *Terias*.

31. *Terias tominia*, Vollenhoven.

Terias tominia, Voll. Mon. Pier. p. 66, pl. 7, fig. 4, ♀.
T. tondana, Feld. Voy. Novara, p. 214, tab. xxvi. figs. 1, 2, ♂, ♀.

Hab.—Macassar and Menado (Celebes), and the Sulla Islands (Coll. Wall.)

This very handsome species varies much in the extent of the black borders in both sexes. I possess a female in which the wings are entirely dusky black above.

This (with several other species) has been described by both Vollenhoven and Felder, in works dated the same year, but as that of Vollenhoven was first published and sold, I have been obliged to adopt his names.

32. *Terias celebensis*, n. sp. (Pl. VI. fig. 1, ♂.)

Male.—Above, black, with a suborbicular yellow patch extending from near the costa of the upper wings to just below the cell of the lower wings, twice sinuated towards the apex of the uppers, elsewhere regularly curved. Beneath, yellow, with spots arranged as in *T. tominia*.

Female.—Dusky black, with a small subovate yellow patch across the end of the cell of the upper wings. The lower wings with the inner margin yellow, extending in an ovate patch between the cell and the outer angle.

Expanse of wings $1\frac{7}{8}$ inch to $2\frac{1}{8}$ inches.

Hab.—Macassar, Menado, Sulla Islands (Wall.).

This beautiful and very distinct species forms an interesting transition to the male of *T. candida*. It is restricted to the Celebes district, which includes the Sulla Islands.

33. *Terias candida*, Cramer.

Papilio candida, Cr. 331 A, ♀. *Terias candida*, Bd. Sp. Gén. p. 673; Voll. Mon. Pier. p. 68.

Hab.—Amboina, Ceram, Bouru, Ké Island (Coll. Wall.); Timor? (Voll.).

This species is well distinguished by the abdominal margin being black or dusky in both sexes. Vollenhoven says it is found

in Sumatra and also in Celebes; the former locality is so improbable that I unhesitatingly reject it in the absence of direct evidence, and as to the latter perhaps a specimen of *T. celebensis* has been mistaken for it.

34. *Terias puella*, Boisduval.

Terias puella, Bd. Voy. Astrol. p. 60, pl. 2, fig. 8, ♂; Sp. Gén. p. 674 (*candida*, var.).

Hab.—Batchian, Gilolo, Waigiou (Coll. Wall.).

The female resembles the male, but has the border rather wider, and is of a pale sulphur-yellow above. In the male the black border is more regularly curved towards the costa than in *T. candida*, ♂. Vollenhoven (Mon. Pier. p. 69) says his specimen of a female from Ternate is white. This would agree with my *T. virgo*. Is it not an error of locality, as he does not say that the specimen was obtained from any recent collector or other trustworthy source, and many Ternate vessels visit the Aru Islands, the habitat of *T. virgo?*

35. *Terias virgo*, n. sp.

Male.—Above, rich yellow, the black border of the upper wings as in *T. candida*, of the lower wings as in *T. puella*.

Female.—Colour above, pure white as in *T. candida*, ♀; border as in *T. puella*, ♂.

Hab.—Aru Islands (Coll. Wall.).

The curious combination of characters as indicated above obliges me to separate this as a distinct species.

36. *Terias impura*, Vollenhoven.

Terias impura, Voll. Mon. Pier. p. 70, pl. 7, fig. 5.

Hab.—Timor.

The form of this small species is more like that of some of the South American species of *Terias*.

Pieris.

This genus will now contain all the species of the old genus *Pieris* which have two subcostal nervules given off before the end of the cell, and the males of which have neither the costa serrated nor the anal valves tufted. The third subcostal nervule is generally well developed, but it varies greatly, becoming very short in

P. gliciria and its allies, and altogether absent in *P. daplidice* and in some South American species. In *P. mesentina*, *P. teutonia*, the African *P. severina*, and a few allied species, the first branch of the subcostal anastomoses with the costal, but in others closely allied, as *P. coronea*, they remain distinct. As thus restricted, the genus comprises about a hundred and twenty species distributed over every part of the globe. I divide the Eastern species into groups characterized by peculiarities of colouration, form, or unimportant details of structure, as follows :—

a. *Coronea* group. Anal valves of male terminating in a horny point or spine; club of antennæ rather abrupt; fore wings elongate; hind wings beneath white or yellow, with the nervures more or less black and dilated.

b. *Aspasia* group. Anal valves of male ovate; club of antennæ slender; wings generally broad; hind wings yellow or green beneath.

c. *Cynis* group. Wings white, pearly, delicate, broad.

d. *Gliciria* group. Wings rather elongate; club of antennæ rather abrupt; third subcostal nervule very short or wanting.

e. *Agathon* group. Wings ample; club of antennæ ovate, flattened; palpi short; front very hairy; third subcostal of moderate length.

a. *Coronea* group.

1. *Pieris mesentina*, Cramer.

Papilio mesentina, Cr. 270 A, B. *Pieris mesentina*, Bd. Sp. Gén. p. 501.

Hab.—India (North and South) and Ceylon.

Some Ceylonese and Indian specimens have the female yellow-tinged above, and the lower wings beneath of a rich ochre-yellow colour. The males do not differ.

2. *Pieris teutonia*, Fabricius.

Papilio teutonia, Fab. Syst. Ent. III. i. p. 199; Don. Ins. N. H. i. pl. 17, fig. 1. *Pieris teutonia*, Bd. Sp. Gén. p. 473.

Hab.—Australia (Coll. Wall., B. M.).

Boisduval gives "Timor and New Guinea" also as habitats of this species; but as *P. coronea* inhabits Timor, this has probably

been mistaken for it. It is very possible it may extend into New Guinea, but it seems never to have been seen there either by myself or the Dutch Entomologists. The female is probably *P. clytie* of Donovan; and as it is useless to continue in our lists species which are unrecognizable from the badness of the figures, and are probably known under other names, I omit altogether *P. perimale* and *P. clytie*.

3. *Pieris niseia*, MacLeay.

Pieris niseia, MacLeay, King's Survey, App. p. 459; Bd. Sp. Gén. p. 473.

Hab.—West Australia.

This seems to be closely allied to *P. teutonia*, and is perhaps not distinct. I have not seen a specimen.

4. *Pieris coronea*, Cramer.

Papilio coronea, Cr. 68 B, C; 361 G, H. *Pieris coronea*, Bd. Sp. Gén. p. 474; Voll. Mon. Pier. p. 29.

Hab.—Java, Celebes, Baly, Lombock, Flores, Solor, Timor (Wall.).

As this species has not been found by the Dutch collectors or by myself in Sumatra or Borneo, the above probably gives its true range. A specimen in the Brit. Mus. is labelled "Amboina," but this is no doubt a wrong locality.

5. *Pieris peristhene*, Boisduval.

Pieris peristhene, Bd. Bull. Soc. Ent. 1859, p. 155.

"Above, like *P. clytie* ♂, but the black discoidal points larger and better marked, the marginal row of white marks less distinct. Beneath, more like *P. coronea;* the hind wings black, with a row of marginal lunules, base of the upper margin and abdominal border bright ochre-yellow. Female smaller, of a dirty yellow-white, with a much wider black border." (Boisd.)

Expanse $2\frac{3}{4}$ inches.

Hab.—Woodlark Island (S. E. of New Guinea), New Caledonia (Coll. W. W. Saunders); New Hebrides, Lord Howe's Island (B. M.).

In the New Caledonian insect the upper wings are white beneath, orange-tinged at the base, with a broad outer border and a mark

across the end of the cell purple-black, and a submarginal row of white spots; the hind wings as above described.

b. *Aspasia* group.

6. *Pieris affinis*, Vollenhoven.

Pieris affinis, Voll. Mon. Pier. p. 40, pl. 5, fig. 2, ♂.

Hab.—Macassar (Wall.); N. Celebes (Voll.).

This insect bears such a curious resemblance to *P. ithome* ♀, that it has been always considered to be the female of a closely-allied species. Owing to its having very small and smooth anal valves I had always considered it to be of that sex; but having heard that Mr. Watson had found plumules on the wing, and therefore pronounced it to be a male, I relaxed my specimens, and by opening the valves found that he was right, and that all the specimens in my own and other collections are males. This being the case it is evident that it has no close *affinity* whatever with *P. ithome*, or with any other known butterfly, so that its name will be a good example of "*lucus a non lucendo*," and will serve to recall the error to which its *analogical* resemblance to *P. ithome* ♀ gave rise. It must now come in the group of true *Pieris*, and is nearest to *P. rachel*, Bd., though forming a distinct subsection.

7. *Pieris Boisduvaliana*, Felder.

Pieris Boisduvaliana, Feld. Wien. Ent. Monats. vi. p. 287; Voy. Novara, pl. xxiv. fig. 8, ♂.

Hab.—Luzon, Philippines (♂, ♀, Wall. Coll.).

Evidently allied to *P. rachel*, but very distinct; and it is particularly interesting as showing an approach to the curious *P. affinis*, which it serves to connect with this group.

8. *Pieris rachel*, Boisduval.

Pieris rachel, Bd. Sp. Gén. p. 469, ♂.

P. Wallaceana, Feld. Voy. Novara, p. 168, ♀.

Hab.—Waigiou (Wall.); Tidore, Ceram (Voll.); Bouru (Wall.).

These specimens agree exactly with Boisduval's description, excepting only the absence of the small yellow spot on the under surface of the lower wings near the outer angle, of which a trace is found only in some Bouru specimens. He gives "Java" as the

locality, but that is not to be trusted to, as collections made in other parts of the Archipelago are so frequently to be obtained in Java. I am sorry to be obliged to cancel the name of an insect which Dr. Felder has kindly dedicated to myself.

9. *Pieris perictione*, Felder.

Pieris perictione, Feld. Voy. Novara, p. 168.

Hab.—Aru Islands.

This seems to be very near *P. rachel*. I have not seen a specimen.

10. *Pieris pitys*, Godart.

Pieris pitys, God. Enc. Méth. ix. p. 134; Bd. Sp. Gén. p. 470.

Hab.—Timor (Wall.).

The wings in this species are more rounded than in *P. rachel*, to which it is very closely allied. It is well described by Boisduval.

11. *Pieris mentes*, n. sp.

Male.—Above, like *P. pitys*, but with an ashy tinge on the fore wings, and generally two spots at the apex. Beneath: the upper wings are black, with the basal half yellow-tinged and the inner margin white, a small white mark at the end of the cell, and the apical spots (3 or 4) yellow; the hind wings as in *P. pitys*.

Hab.—Lombock, Flores (Coll. Wall. and W. W. Saunders).

The dark underside of the fore wings distinguishes this very readily from *pitys* and *rachel*.

12. *Pieris nabis*, Lucas.

Pieris nabis, Lucas, Rev. et Mag. de Zool. 1852, p. 326, ♂.

P. perithea, Feld. Voy. Novara, p. 169, ♀.

Hab.—Australia, Moreton Bay (Coll. Wall.), Sidney and W. Australia (Coll. W. W. Saunders).

A distinctly marked species, closely allied to *P. rachel*. A specimen in the Brit. Mus. from New Hebrides has the fore wings more concave, and the hind wings more triangular than in the type, and other Australian specimens vary considerably in the tint

of the under surface. This is sometimes supposed to be *P. lanassa*, Boisd., but it certainly does not agree with his description. Felder's description of his *P. perithea* ♀ so exactly agrees with this in almost all points that I cannot keep it separate.

13. *Pieris narses*, n. sp. (Pl. VI. fig. 3, ♂.)

Form of wings and markings of the upper surface exactly like *P. nabis* in both sexes. Beneath: the apex of the uppers is pale rufous-brown, and the whole surface of the lower wings earthy-brown with an orange tinge; the apical spots are obsolete, and the dusky border of the lower wings is of a deeper colour within, forming a waved submarginal band; the base of the upper wings is yellow-tinged, and the basal portion of the costa of the lower wings bordered with deep orange.

Expanse $1\frac{9}{10}$ inch.

Hab.—Moreton Bay, Australia (Coll. Hewits. ♂; Coll. W. W. Saunders, ♀).

Very close to *P. nabis*, but appears to differ constantly in the colour and marking of the under surface, which resembles *perimale* of Donovan, but the colouring of the upper surface in his figure is so different that it cannot be considered the same species.

14. *Pieris periclea*, Felder.

Pieris periclea, Felder, Voy. Novara, p. 169.

Wings more elongate than *P. narses*, which it much resembles; the outer margin of the uppers concave.

Male.—Above, white; costa and base dusky, a triangular black apical patch notched in the middle and reaching the outer angle, with a curved row of six small elongate subtriangular white spots; hind wings with a narrow dusky border, near which the nervures are black, and a faintly indicated dusky band within. Beneath: the apex of the uppers beyond the row of spots, which are less distinct, rusty-ochre; hind wings entirely earthy-ochre, with a submarginal row of seven diffused round dusky spots not far beyond the cell. The base of the uppers orange-tinged.

Expanse $1\frac{7}{8}$ inch.

A specimen in Mr. Hewitson's Collection agrees exactly above, but beneath the disc of the hind wings is ochre-yellow, the sub-

marginal dark spots form a continued irregular band, beyond which is a row of indistinct whitish spots.

Expanse 2 inches.

Hab.—New Caledonia (Coll. W. W. Saunders).

These two specimens indicate a variable species, which I had at first thought distinct from Felder's species.

15. *Pieris judith*, Fabricius.

Papilio judith, Fab. Ent. Syst. III. i. p. 202. *Acrea judith*, Hübn. Zutr. 669, 670, ♀. *Pieris judith*, Bd. Sp. Gén. p. 468; Voll. Mon. Pier. p. 21.

Hab.—Java (Wall.); (♂, ♀, B. M.).

Here commences a peculiar type of colouration, of which the present is one of the most distinct species.

16. *Pieris aspasia*, Stoll.

Papilio aspasia, Stoll, Suppl. Cr. 33, f. 3, 3 C, ♂. *Pieris aspasia*, Bd. Sp. Gén. p. 469, ♂; Voll. Mon. Pier. p. 22, ♂, ♀.

Hab.—Ceram, Amboina (Wall.).

This is the true *P. aspasia* of Stoll, but there are well marked permanent forms in each of the adjacent islands, which it seems desirable to separate. Most of these offer differences in both the sexes, and two of the females have been separately named by Vollenhoven, while he keeps the males with *P. aspasia*.

17. *Pieris emma*, Vollenhoven.

Pieris emma, Voll. Mon. Pier. p. 24, pl. 4, f. 2, ♀.

Male.—Very like *P. aspasia*. Above: the fore wings have the nervures and the border rather more broadly black, the hind wings equally rich orange, with a broader black border; beneath there are the same differences. The female differs completely from that of *P. aspasia*, more so than indicated in Vollenhoven's figure, being earthy-brown above with dull yellowish-white spots and markings. Rather larger than *P. aspasia*.

Hab.—Batchian, Gilolo, ♂, ♀ (Wall.).

18. *Pieris olga*, Eschscholtz.

Pieris olga, Eschsch. Voy. Kotzebue, pl. 9, f. 21 a, b.

Near *P. aspasia*. Hind wings somewhat angular, of a lighter

colour and with a broader black border; beneath, the fore wings are much whiter, the hind wings yellow, with the costal and subcostal nervures black-bordered. The female is intermediate between *aspasia* and *emma*, the hind wings being pale dull yellow, with a broad irregular dusky border, and on the under side the veins and markings are purple-brown.

Hab.—Philippine Islands (Coll. Wall., B. M.).

A specimen from Hong Kong in the British Museum agrees with this, but is of a reddish-orange tint on the lower wings.

19. *Pieris hester*, Vollenhoven.

Pieris hester, Voll. Mon. Pier. p. 24, pl. 4, f. 1, ♀.

Male.—Above: upper wings white, with a black border, but the veins much less black-edged than in *P. aspasia;* lower wings clear pale orange, with a black border as in *P. emma*, ♂. Beneath, differs from *P. aspasia* in the same degree as above.

Female.—Very distinct from *P. aspasia* by having the disc of the uppers yellowish-white, with a blackish border without white or yellow spots; the lower wings dusky-orange, with an ill-defined broad dusky border, more or less distinctly notched near the outer angle.

Hab.—New Guinea, Mysol, Waigiou (Wall.).

20. *Pieris jael*, n. sp.

Male.—Marked as in *P. aspasia*, but the nervures more clearly defined, and the hind wings clear yellow as in *P. hester*, ♂, and with a black border slightly wider than in *P. aspasia*.

Female.—Differs in nearly the same way from the female of *P. aspasia;* the colour much paler, and the markings on the under side less diffused.

Hab.—Bouru (Wall.).

21. *Pieris lea*, Doubleday.

Pieris lea, Doubl. Ann. Nat. Hist. xxvii. p. 23; Gen. Diur. Lep. t. 6, f. 3 (err. *P. clemanthe*); Voll. Mon. Pier. p. 23, ♂ (the female as *P. amalia*, ♀).

Hab.—Borneo (Wall.); Banca (Voll.).

22. *Pieris amalia*, Vollenhoven.

Pieris amalia, Voll. Mon. Pier. p. 23, pl. 3, f. 6, ♀ (as the male).

Male.—Above, white, the border and nervures as in *P. lea*, but more clearly defined and without the obscure submarginal band; the patch on the lower wings well defined, and entirely deep orange. Beneath, very like *P. lea*, but there are three yellow spots near the apex of the fore wing, and on the hind wings the border and black nervures are narrower, and the anal region is rich orange, shading into the pure yellow of the disc.

The female has been described and figured by Vollenhoven as the male.

Hab.—Singapore (Wall.); Sumatra (Voll.).

23. *Pieris naomi*, n. sp.

Male.—Above, as in *P. amalia*, but the orange anal patch is not clearly defined. Beneath: the upper wings white, nearly covered by the thickened nervures and broad dusky margin, three yellow spots at the apex and one near the costa; lower wings entirely rich orange-red, with a rather broad purple-brown border enclosing a few reddish spots, the subcostal nervures only dusky.

Female.—Dusky brown, with whitish patches between the nervures, and a few submarginal spots, the anal region dusky orange. Beneath: the uppers nearly as above but darker; the lower wings purplish-brown, marked with ochre-yellow at the base and between the nervures.

Hab.—Lombock, Flores (Wall.).

A very distinct species, intermediate between *P. amalia* and *P. temena*.

24. *Pieris temena*, Hewitson.

Pieris temena, Hew. Ex. Butt. vol. ii. Pieris III. f. 19, ♂.

Female.—Blackish-brown, with stripes and spots between the nervures cream-white; on the hind wings the disc is reddish-white, with the nervures dusky, and a blackish hind border with irregular creamy spots. Beneath: the uppers are marked as in the male, but the spots are whiter; the lower wings are less brilliant than in the male, of mixed red and yellow, the subcostal and discoidal nervures black-bordered, and the black submarginal band more acutely toothed.

Hab.—Flores, Lombock (Wall.).

In fine specimens of the male the underside is rich orange-red. Vollenhoven (Mon. Pier. p. 25, n.) doubts this being an inhabitant of the Archipelago, because "the Museum of Leyden possesses a female specimen from New Zealand." I myself captured both sexes in Lombock, and my assistant Mr. Allen did the same in Flores. I am therefore more disposed to think that the Leyden specimen did not come from New Zealand.

25. *Pieris tamar*, n. sp. (Pl. VI. fig. 2, ♂.)

Form of wings as in *P. temena;* same size.

Male.—Above, like *P. temena*, but the black border about twice as wide. Beneath: differs from *P. temena* by the marginal and transverse rows of spots being smaller, and the patches in and below the cell much whiter and larger; the lower wings have a very wide black border extending into the end of the cell, and the submarginal red spots very small, the disc coloured as in *P. temena.*

Female.—Has a broad black border at the extremity of both wings, with a prolongation from the uppers to the end of the cell. Beneath, nearly as in the male, but the spots are rather larger and less distinctly marked.

Hab.—Baly (Coll. Wall. and W. W. Saunders).

A beautiful species, distinct in both sexes from *P. temena*, but more especially different in the female. Apparently restricted to the small island of Baly, situated between Lombock and Java.

26. *Pieris læta*, Hewitson.

Pieris læta, Hew. Ex. Butt. vol. iii. Pieris VII. f. 45, 46, ♂; Voll. Mon. Pier. p. 31, pl. iv. f. 3, ♀.

Hab.—Timor (Coll. Wall. ♂).

This beautiful species evidently belongs to the present group, and seems to come best here. The colouring of the underside is however curiously like *Thyca belisama*, except in the marginal spots being red instead of orange. It may probably be a case of mimicry, like those of *Prioneris* for the same group.

27. *Pieris timnatha*, Hewitson.

Pieris timnatha, Hew. Ex. Butt. vol. iii. Pieris VII. f. 47, 48, ♂; Voll. Mon. Pier. p. 25.

Hab.—Tondano, N. Celebes (Coll. Wall.).

First variety.—Above: apex of the upper wings blacker, the spots scarcely marked; hind wings without black markings on the

grey border. Beneath: the costa and apex of the uppers darker, the posterior band of the hind wings much broader, and the nervures more widely margined, the submarginal spots very small.

Hab.—Sula Islands (Coll. Wall.).

Second variety.—Above, whiter, nearly like *P. eperia*, the apex dark, with small white linear spots, and a single dark band to the end of the discoidal cell. Beneath, paler, the submarginal band of the hind wings abruptly angular as in *P. eperia*, and the submarginal spots more elongate and nearly white. Female: above, blackish, with white patches between the nervures chiefly in and near the cell; beneath, like the male, but the nervures more broadly dark-margined.

Hab.—Macassar (Coll. Wall.).

The last variety closely resembles *P. eperia* beneath, but the form of the wings is quite different. This seems to be a variable species, and a greater number of specimens would probably present intermediate forms. The Sula Islands are zoologically a part of Celebes, as is well shown by their birds.

28. *Pieris eperia*, Boisduval.

Pieris eperia, Bd. Sp. Gén. p. 470; Voll. Mon. Pier. p. 27.

Hab.—Macassar, Menado (Wall.).

This fine species differs much in form from all its allies, having the abrupt band of the costa and the elongated wings characteristic of many Celebes butterflies. The specimens from Menado are more richly coloured beneath.

29. *Pieris pactolicus*, Butler.

Pieris pactolicus, Butler, Proc. Zool. Soc. 1865, p. 455, pl. xxvi. f. 1, ♂.

Hab.—Borneo (*not* Bogota), (Brit. Mus. Coll.).

This is near *P. coronis* and *P. eperia*, but is quite distinct. By an oversight the habitat is given as "Bogota," which may easily lead to its being overlooked by persons studying Eastern Lepidoptera.

30. *Pieris coronis*, Cramer.

Papilio coronis, Cr. 44 B, C, ♀. *Pieris coronis*, Bd. Sp. Gén. p. 471.

Hab.—N. India, Hong Kong (Coll. Wall., B. M.).

This species does not seem to vary much in Indian specimens, and I consider Cramer was correct in making the allied forms distinct.

31. *Pieris evagete*, Cramer.

Papilio evagete, Cr. 221 F, G, ♂.
Pieris coronis, part, Bd. Sp. Gén. p. 471.

Hab.—India (Coll. Wall., B. M.).

Cramer's figure well represents the male of this species; the female only differs by having the nervures, especially the median, more dilated, and the colours rather more obscure. It is distinguished from the female of *coronis* by having a row of well-marked submarginal spots on the upper surface of the fore wings, by the yellow colour of the under surface of the hind wings, and by their more rounded outline.

32. *Pieris corva*, n. sp.

Pieris coronis, var. A., Bd. Sp. Gén. p. 472, ♂.

Female.—Has the nervures round the cell of the upper wings much thickened, and the white apical spots obsolete; beneath, as in the male.

Hab.—Java, Baly (Coll. Wall.).

This form has a well-marked character of the under surface which readily separates it from *P. coronis*. It also has a posterior black border, much wider and more defined than in the allied forms.

33. *Pieris zeuxippe*, Cramer.

Papilio zeuxippe, Cr. 362 E, F.

Hab.—S. India.

This seems to be near *P. hira*, Moore.

34. *Pieris hira*, Moore.

Pieris hira, Moore, Proc. Zool. Soc. 1865, p. 490, pl. xxxi. f. 17.

Hab.—Punjaub, Oude (Coll. Moore).

This is a small distinct species, allied to *P. coronis*.

35. *Pieris copia*, n. sp.

Male.—Above, white; the upper wings with a black border nearly as in *P. hira*, but the apical spots almost obsolete; hind wings with the spots at the end of the nervures of a greyish tint. Beneath, the lower wings and the apex of the uppers pale greenish, the spots of the uppers as in *P. hira*, but fainter; the nervures of the lower wings broadly margined with dusky olive, and a row of small spots of the same colour parallel to the hind margin.

Expanse of wings $2\frac{1}{4}$ inches.

Hab.—Bengal (Coll. Wall. and Moore).

Closely allied to *P. hira*, Moore, which appears to be a small and more highly-coloured form peculiar to West India.

36. *Pieris amba*, n. sp.

Male.—Above, white; upper wings with the base of the costa dusky, and a black patch across the apex curved and crenated internally, not reaching the outer angle; lower wings with a very faint narrow border, forming spots near the outer angle. Beneath: the uppers white, with the costa, apex, and a partially-detached spot, pale ochre-brown; the lower wings entirely ochre-brown, with the subcostal and median nervures and an indistinct band parallel to the hind margin rather darker.

Expanse of wings 2—$2\frac{2}{3}$ inches.

Hab.—N. India (Coll. Wall. and Moore).

Allied to *P. copia* and *P. remba*, but distinguished by the nearly uniform pale earthy-brown colour of the underside of its hind wings.

37. *Pieris nama*, Moore.

Pieris nama, Moore, Proc. Zool. Soc. 1857, p. 102 (♂, ♀), pl. 44, f. 1, 2.

Hab.—N. India (Coll. Wall., B. M.).

A fine distinct species in both sexes.

38. *Pieris remba*, Moore.

Pieris remba, Moore, Cat. Lep. E. I. C. p. 75.

Female.—Above, blackish-brown, a large white patch on the uppers across the end of the cell, and one on the lower wings not

passing the end of the cell, and produced towards the outer angle; base dusky. Beneath nearly as in the male. (B. M.), Ceylon.

Hab.—Canara (India), Ceylon (Coll. Wall. and Moore).

39. *Pieris nadina*, Lucas.

Pieris nadina, Luc. Rev. & Mag. de Zool. 1852, p. 335.

(Very near *P. nama*, Moore, ? same.)

♂. Upper wings about the same as *P. nama*; "hind wings with the extremity of the nerves black. Beneath: uppers with a yellow band across the greenish apex; hind wings with a transverse band of green spots.

"♀. Dusky; uppers above with two white bands, and a row of yellow spots at the tip; lower wings also with two white bands, the hind one formed of spots placed between the nervures; these bands more distinct beneath; nervures and margins finely black. 52 mill." (Lucas.)

Hab.—Silhet (also Java?).

Appears distinct by the description, but I have not seen a specimen.

40. *Pieris nesba*, Lucas.

Pieris nesba, Luc. Rev. & Mag. de Zool. 1852, p. 324.

"♀. Fore wings, above, brown-black, with the spaces between the nervures clear grey; three or four white marks near the apex; beneath, the same as above, with the spaces and discoidal cell browner, a marginal row of greyish-white spots reaching the hind border. The hind wings sulphur-yellow, with a broad black border, and marginal spots of greyish-white; beneath, lighter yellow, with a narrower border and larger spots." (Lucas.)

Hab.—China.

A species which I have not seen, but which probably comes here.

c. *Cynis* group.

41. *Pieris cynis*, Hewitson.

Pieris cynis, Hew. Ex. Butt. vol. iii. Pieris VIII. f. 54, ♂.

Female.—Above: upper wings blackish-brown, with a curved band of four white spots, one large at the end of the cell, two smaller below, and one less distinct on the inner margin; lower wings

whitish, with a dusky border and base, and white fringe. Beneath, as above, but the white marks larger and less sharply defined.

Hab.—Malacca, Mount Ophir (Wall.); Sumatra (Hewits.).

A rare species, with the aspect of an *Elodina*.

d. *Gliciria* group.

42. *Pieris nipalensis*, Gray.

Pieris nipalensis, G. R. Gray, Lep. Ins. Nep. pl. 6, f. 1, 3.

Hab.—N. India, Madras (B. M.); Himalayas, to 10,000 feet altitude (Capt. Lang).

This is the Indian form of *P. brassicæ*.

43. *Pieris ajaka*, Moore.

Pieris ajaka, Moore, Proc. Zool. Soc. 1865, p. 490, pl. xxxi. f. 16.

Hab.—N. W. Himalayas (B. M.); Lower Kunawur (Capt. Lang).

Allied to *P. gliciria*. *Pieris melete*, Ménétries, from Japan, hardly differs from this species.

44. *Pieris gliciria*, Cramer.

Papilio gliciria, Cr. 171 E, F. *Pieris gliciria*, Bd. Sp. Gén. p. 524.

Hab.—N. India, China; Himalayas, to 10,000 feet (Capt. Lang); Philippine Islands (Coll. Wall., B. M.).

The specimens from the Philippines are rather smaller, and have the hind wings less produced at the outer angles, but offer no definite characters to separate them specifically.

45. *Pieris pigea*, Boisduval.

Pieris pigea, Bd. Sp. Gén. p. 523.

Hab.—China.

I have not seen a specimen of this species.

46. *Pieris daplidice*, Linnæus.

Papilio daplidice, Linn. S. N. ii. p. 760. *Pieris daplidice*, Bd. Sp. Gén. p. 544.

Hab.—N. India, "Shipkee, alt. 13,000 feet" (Capt. Lang).

This species hardly enters the Indian region. It is truly Palæarctic.

47. *Pieris kalora*, Moore.

Pieris kalora, Moore, Proc. Zool. Soc. 1865, p. 489, pl. xxxi. f. 15.

Hab.—N. W. Himalayas, 15,000 feet elevation (Capt. Lang).

Allied to *P. callidice*. A Palæarctic species.

e. *Agathon* group. (*Aporia*, Hübn.)

48. *Pieris agathon*, Gray.

Pieris agathon, G. R. Gray, Lep. Ins. Nepal. pl. 8, f. 1, ♂; Bd. Sp. Gén. p. 447, ♂.

P. phryxe, Bd. Sp. Gén. p. 446; Blanchard, Voy. Jacquemont, Ins. t. 2, f. 1, ♀.

Hab.—N. India (B. M. ♂, ♀).

This curious and isolated form, I think with Mr. Moore, comes next *P. cratægi* and *P. soracta*, which latter has the small yellow spot at the base of the hind wings beneath. The three species agree with each other, and with the true *Pieris*, in all important points of structure; and I can see no reason for separating them generically, although the short hairy palpi perhaps indicate the affinity of this family to the *Papilionidæ*.

49. *Pieris nabellica*, Boisduval.

Pieris nabellica, Bd. Sp. Gén. p. 509.

Hab.—N. W. India, Upper Kunawur (Capt. Lang). (Coll. Moore.)

The affinities of this remarkable species were quite mistaken by Boisduval, who places it along with *P. protomedia* and other African species. It is, however, clearly allied to *P. agathon* and *P. soracta*, but is so coloured as to lead one at first sight to place it near *P. eucharis*, from which group it differs in neuration and other points of structure.

50. *Pieris soracta*, Moore.

Pieris soracta, Moore, Cat. Lep. E. I. C. p. 84.

Hab.—N. India (Coll. Moore, B. M.).

This is evidently close to the European *P. cratægi*, and the

appearance of the yellow spot at the base of the lower wings beneath leads to *P. agathon*, which otherwise appears so different.

(*Pieris hippia*, Bremer, Lep. Öst-Sibiriens, tab. iii. f. 1, from East Siberia, is very near *P. soracta*, Moore.)

Thyca, Wallengren.

This genus is well distinguished by having only one subcostal nervure given off before the end of the cell, the first being always absent. The body is comparatively small, the antennæ are generally long and slender, the wings ample, the uppers often much elongated. The larvæ are clothed with long hairs, and the pupæ are spined on the under surface.

This group is preeminently a natural one. It consists of rather large insects, which are adorned with more rich and variegated hues than any other old-world *Pieridæ*; and, like so many other richly-coloured insects, they are found only in the vast forests, which, with few interruptions, spread continuously from the slopes of the Himalayas through Malacca and the Malayan Islands to North Australia and the Pacific. They all fly weakly and slowly, yet they are by no means rare, since in almost every locality I found some of the species very abundant in the forests, flying lazily along near the ground, sometimes settling on a flower, but more generally seeming to wander aimlessly through the pathless recesses of the forest. It is probable, then, that they have some special protection which renders swiftness of motion and the disguise of sombre colours unnecessary, and this seems the more probable when we find that some of them are the subjects of mimicry, as already pointed out in the introduction, and under the genus *Prioneris*.

Thyca appears to be closely related to the American genus *Euterpe*, since it not only agrees in many of its species having a dark ground-colour, but hardly offers any constant structural differences.

I arrange the species under the following groups:—

a. *Pasithoe* group. Lower wings marked with a red semicircle at their base beneath.

b. *Belladonna* group. Lower wings with a basal yellow patch.

c. *Belisama* group. Lower wings with a red spot at the base beneath, between the costal and subcostal nervures.

d. *Hyparete* group. Lower wings beneath with the basal region yellow, and a submarginal band of red, white or yellow spots.

e. *Nysa* group. Lower wings beneath black, yellow-marked at the base, and with yellow submarginal spots.

Note.—The extensive *hyparete* group is further subdivided in the catalogue of species.

a. *Pasithoe* group.

1. *Thyca pasithoe*, Linnæus.

Papilio pasithoe, Linn. S. N. ii. p. 755. *Pieris pasithoe*, Bd. Sp. Gén. p. 451. *Papilio porsenna*, Cr. 43 D, E, ♂; 352 A, B, ♀.

Hab.—India, Silhet (B. M.).

2. *Thyca henningia*, Eschscholtz.

Pieris henningia, Eschsch. Voy. Kotzebue, pl. ix. f. 20 a, 20 b, ♀.

Form of *T. pasithoe*, but the upper wings with the outer margin concave.

Male.—Above, black: upper wings with a bluish-white band formed by a large spot in the cell and two below it as in *T. pasithoe*, but larger and more defined, the outer band of spots and that at the end of the cell absent or very faintly indicated; lower wings with a patch of rich yellow between the cell and the abdominal margin and reaching the second median nervule; a faint bluish-white patch across the cell to the inner margin, no submarginal spots. Beneath: the uppers have a distinct white band across the wings, a spot at the end of the cell and four small linear spots across the apex; the lower wings have the spots rich yellow, disposed as in *T. pasithoe*, but leaving a broader black border, and the outer spots all very small; the red semicircular band is narrower, and does not extend beyond the costal nervure to the margin of wing as in *T. pasithoe*.

Female.—Above, as in the male, but the band across the uppers is whiter and more defined, and the yellow patch of the lower wings is paler and extends into the discoidal cell. Beneath it differs in the same manner from the under surface of the male, every spot and band being the same but rather more developed, and there are five spots instead of four in the apical band.

Expanse of wings: male 3 inches; female $3\frac{1}{5}$ inches.

Hab.—Manilla (Coll. W. W. Saunders).

A beautiful species, closely allied to the Indian *T. pasithoe*.

3. *Thyca pandemia*, n. sp. (Pl. VI. fig. 4, 4 *a*, ♂.)

Upper wings shorter and hind wings more elongated than in *T. pasithoe*.

Male.—Above, black, a white spot at the end of the cell of all the wings, and at the outer angle of the uppers, which have also the costa and a curved band of linear spots across the apex decreasing to the outer angle within which is a linear mark, greyish-white; the lower wings have a rich yellow abdominal patch only just passing the first median nervule, and a faint greyish band from the inner margin across the cell. Beneath: the markings of the uppers as above but more distinct; the lower wings have the yellow spots as in *T. pasithoe*, but smaller and brighter, only the two spots between the cell and the outer row are absent, and the spot in the cell is divided into two; the semicircular red band as in *T. henningia*, but still narrower.

Expanse of wings $2\frac{5}{8}$ inches.

Hab.—Borneo (Coll. W. W. Saunders, Brit. Mus.).

A beautiful modification of *T. pasithoe*, at once distinguished by the absence of the band across the upper wings.

4. *Thyca egialea*, Cramer.

Papilio egialea, Cr. 189 D, E, ♀; 258 E, F, ♂. *Pieris egialea*, Bd. Sp. Gén. p. 450.

Hab.—Java (Wall.); Sumatra, Biliton, Banca (Voll.).

Vollenhoven in his Monograph of Malayan *Pieridæ* (p. 7) gives also "Ceram" as a locality for this insect, but I have no doubt this is an error, and therefore do not include it among the localities. The whole group to which this species belongs is restricted to the Indian region.

5. *Thyca erithoe*, Boisduval.

Pieris erithoe, Bd. Sp. Gén. p. 450; Voll. Mon. Pier. p. 7, ♂.

Female.—Has the patch on the upper wings whiter, two spots at the end of the cell and those at the apex large and white; on the lower wings the white patch extends only in a narrow prolongation across the end of the cell. Beneath, differs from the male nearly as above, and on the lower wings the yellow patch does not extend so far up the wing, leaving a notched black band between it and the red base.

Hab.—Java (B. Mus. Coll. ♂, ♀).

The bluish patch on the disk of the upper wings is almost obsolete in some specimens.

6. *Thyca thisbe*, Cramer.

Papilio thisbe, Cr. 233 C. *Pieris thisbe*, Bd. Sp. Gén. p. 449, ♀.

Hab.—China.

Boisduval has described an Indian female as the male of Cramer's species, which I consider distinct from that of India. I have not seen specimens.

7. *Thyca pyramus*, Wallace.

Pieris thisbe, G. R. Gray, Lep. Ins. Nepal. p. 8, t. 7, f. 1. (*P. thisbe* ♂, Bd. Sp. Gén. p. 449, is the female.)

Hab.—N. India (Coll. Wall., B. M.).

This differs so much from Cramer's figure that I believe it must form a distinct species. The female has the lower part of the hind wings yellow and a yellow spot within the cell, and beneath, the whole posterior border is yellow, whereas in Cramer's figure and Boisduval's description these parts are white or dusky.

8. *Thyca parthenope*, n. sp. (Pl. VI. fig. 5, 5 *a*, ♂.)

Male.—Above: form and markings almost exactly as in *T. pasithoe* ♂, but the anal margin is nearly white and the posterior row of spots less distinct. Beneath: upper wings as in *T. pasithoe;* lower wings with the red semicircular band of about the same size and form as in *T. pasithoe*, the markings of the rest of the wing arranged as in *T. pyramus*, except that the yellow colour is paler and extends much further up the wing, filling two-thirds of the discoidal cell.

Expanse of wings $2\frac{3}{4}$ inches.

Hab.—Singapore (Coll. Wall.); Borneo (B. M.).

This insect combines the characters of two very distinct Indian species, but in the Bornean specimen in the British Museum one of the yellow patches beyond the cell is partly divided, showing an approach to the *pasithoe* form.

9. *Thyca ninus*, n. sp. (Pl. VII. fig. 1, ♂.)

Closely allied to *T. pyramus*, Wall. *Male.*—Wings broader uppers more triangular, the outer margin not concave and pro-

duced. Above: upper wings marked nearly as in *T. pyramus*, but the ground colour is blacker, and the basal patches bluer and less elongate; lower wings with the red patch at the base much smaller, not filling one third of the cell, below it a broad transverse bluish-ashy band, paler at the abdominal margin, a large ochre-yellow patch at the anal angle divided into four parts by the nervures; outer angle black, without whitish markings. Beneath, almost exactly as in *T. pyramus*, but the red semicircle does not extend quite so far down, and the posterior markings of the hind wing are more clearly defined and of a nearly uniform ochre-yellow.

Expanse of wings 3 inches.

Hab.—Malacca, Mount Ophir (Coll. Wall.).

This insect differs so clearly in form, size, marking, colouration and locality from its allies, that I have felt obliged to give it a different name, although its general appearance is such that many Entomologists would at once pronounce it "a mere variety." Male specimens only were taken by myself at Malacca.

b. *Belladonna* group.

10. *Thyca belladonna*, Fabricius.

Papilio belladonna, Fab. Ent. Syst. III. i. p. 180; Don. Nat. Repos. pl. 35.

Pieris Horsfieldii, G. R. Gray, Lep. Ins. Nepal. t. 8, f. 2.

Hab.—N. India (Coll. Wall., B. M.).

The specimens vary in size, form and colouration. Some are very black, with the spots smaller, and scarcely a trace of yellow on the abdominal margin above.

The female is brown-black, with the spots yellowish-white. This sex seems very rare, as I have only seen a specimen in the Collection of Mr. Hewitson.

11. *Thyca sanaca*, Moore.

Pieris sanaca, Moore, Proc. Zool. Soc. 1857, p. 103, pl. xliv. f. 4 (err. 6), ♂.

Hab.—Darjeeling (Coll. B. M.).

Female.—Above, pale sulphur-yellow, the dark parts as in the male, but much less diffused; beneath pale yellow-white, the yel-

low spots as in the male, the dark markings less in extent. (B. M. Coll.)

A beautiful and rare species, allied to *T. belladonna*.

12. *Thyca aganippe*, Donovan.

Papilio aganippe, Don. Ins. N. Holl. pl. 29. *Pieris aganippe*, Bd. Sp. Gén. p. 457, ♂.

Female.—Above, pale yellow; the marginal black band broader than in the male and well defined, a row of spots between it and the cell, and a large patch at the end of the cell sometimes connected with the border. Beneath nearly as in the male.

Hab.—Australia (Coll. Wall., B. M.).

It is difficult to locate this common Australian species. The form of its wings and the black under surface of the hind wings, with the basal yellow and red spot, seem to indicate an affinity to *T. belladonna*.

c. *Belisama* group.

13. *Thyca belisama*, Cramer.

Papilio belisama, Cr. 285 A, B, C, D. *Pieris belisama*, Bd. Sp. Gén. p. 464; Voll. Mon. Pier. p. 16.

Hab.—Java, Sumatra (Coll. Wall.).

The colour of the males varies from white to rich cream-colour, and even to orange-yellow, and of the females from cream-colour to ochre-yellow. My Java specimens show these differences.

14. *Thyca sthenobœa*, Boisduval.

Pieris sthenobœa, Bd. Sp. Gén. p. 466.

Hab.—Moluccas ("Coll. de M. Feisthamel").

Boisduval thinks this is near *T. belisama*. The absence of the red spot beneath is however very remarkable, and it may perhaps be more allied to *T. agostina*. I have not seen a specimen, nor is it in the Leyden Museum.

15. *Thyca glauce*, Butler.

Pieris glauce, Butler, Proc. Zool. Soc. 1865, p. 431, pl. xxv. f. 2, ♂.

Hab.—Borneo (B. M.).

A well-marked local form of *T. belisama*.

16. *Thyca Descombesi*, Boisduval.

Pieris Descombesi, Bd. Sp. Gén. p. 465.

Hab.—N. India, Cochin-China (Coll. Wall., B. M.).

17. *Thyca zebuda*, Hewitson.

Pieris zebuda, Hew. Ex. Butt. vol. iii. Pieris VII. f. 49, 50, ♀.

[*P. Descombesii*, Voll. Mon. Pier. p. 18.

Hab.—Celebes (Coll. Wall.).

This species is very distinct from *T. Descombesi*, both in form and colouration of both sexes. The male has the excessively elongated wings so characteristic of the butterflies of Celebes.

18. *Thyca aruna*, Boisduval.

Pieris aruna, Bd. Sp. Gén. p. 466, ♂; Hew. Ex. Butt. vol. ii. Pieris III. f. 20, 21, 22; Voll. Mon. Pier. p. 18.

P. bajura, Bd. Sp. Gén. p. 467, ♀.

Hab.—Waigiou, Batchian (Wall.); Obi (Voll.); New Guinea (Voy. Coq.).

This is perhaps the most beautiful and remarkable of all the *Pieridæ*, its two sexes presenting four totally distinct surfaces, all finely coloured.

19. *Thyca harpalyce*, Donovan.

Papilio harpalyce, Don. Ins. N. Holl. pl. 18. *Pieris harpalyce*, Godt. Enc. Méth. ix. p. 149; Bd. Sp. Gén. p. 458.

Hab.—Australia, Moreton Bay (Coll. W. W. Saunders, B. M.).

One of the handsomest of the *Pieridæ* on the underside.

20. *Thyca nigrina*, Fabricius.

Papilio nigrina, Fab. Ent. Syst. III. i. p. 200. *Pieris nigrina*, Sw. Zool. Ill. 2 ser. pl. 69; Bd. Sp. Gén. p. 459.

Hab.—Australia (Coll. Wall., B. M.).

A common species in most parts of Australia.

d. *Hyparete* group.

This extensive group may be subdivided according to details of colouration.

* A band of red spots, the nervures black and dilated beneath.

21. *Thyca hierte*, Hübner.

Papilio hierte, Hüb. Zutr. f. 77, 78.

Papilio antonoe, Stoll. 33, f. 2, 2 b (*nec* Cramer). *Pieris antonoe*, Bd. Sp. Gén. p. 454.

Hab.—China (Coll. Wall.).

Var. *Indica.*

Male.—Wings broader than in the type, nervures and apex more dusky. Beneath: the upper wings have the nervures much more broadly dusky, leaving the apical spots smaller and not yellow-tinged; the lower wings have the whole basal and abdominal region rich orange instead of yellow, the marginal spots larger and deeper red, the two inner ones shading into the orange tint.

Hab.—Siam (Coll. W. W. Saunders); India (Coll. Moore).

Female.—Above: upper wings dusky black, with greyish lines in the cell and between the nervures, and a band of six linear spots across the apex; lower wings with the nervures broadly dusky, the discoidal cell and the abdominal margin nearly white. Beneath: the uppers black, with the spaces between the nervures whiter than above, and the upper spots of the apical band orange-tinged; the hind wings nearly as in the male, with the orange colour extending farther towards the outer angle, and the red marginal spots all well defined.

Hab.—Burmah (Coll. Moore).

In the British Museum Collection are a series of specimens from various parts of tropical Asia, no two of which are exactly alike, and which show that, though the extreme forms are well marked, they are connected by such a series of completely intermediate forms that it is impossible to define them.

22. *Thyca eucharis*, Drury.

Papilio eucharis, Drury, Ins. ii. t. 10, f. 5, 6; Cr. 201 B, C, 202 C (*nec* Fab.).

Papilio hyparete, Fab. Ent. Syst. III. i. p. 178 (*nec* Linn.).

Pieris epicharis, Godt. Encl. Méth. ix. p. 153; Bd. Sp. Gén. p. 456.

Hab.—North and N. W. India (Coll. Wall., B. M.).

A very common species in collections.

23. *Thyca hyparete*, Linnæus.

Papilio hyparete, Linn. S. N. ii. p. 763; Clerck, Icon. t. 38, f. 2, 3 (*nec* Fab.). *Pieris hyparete*, Bd. Sp. Gén. p. 455; Voll. Mon. Pier. p. 9.

Papilio antonoe, Cr. 187 C, D, 320 A, B.

Hab.—Java, Borneo, Singapore (Wall.); Sumatra (Voll.).

This species presents slight but apparently permanent differences in each locality. Taking those of Java as the type, the Singapore form has a narrower black border to the hind wings, the outer red spot is wanting beneath, the three inner red spots are much larger, and the anal margin is of a deeper yellow colour. The Borneo form has no black hind border but a broad ashy one, while beneath it is intermediate between the preceding and the type. Both however are larger, and have more elongate wings than the Java specimens.

Vollenhoven gives "Ceram" as another locality, but this is evidently an error.

24. *Thyca luzoniensis*, Felder.

Pieris luzoniensis, Feld. Wien. Ent. Monats. vi. p. 285.

Hab.—Luzon, Philippines (Coll. Wall., B. M.).

"A geographical form of *P. hyparete*" (Feld.). This has broader wings than the other forms, but is hardly more distinct than those of Sumatra or Borneo.

25. *Thyca Rosenbergii*, Vollenhoven.

Pieris Rosenbergii, Voll. Mon. Pier. p. 11, pl. 2, f. 6; pl. 3, f. 1. *P. Lorquinii*, Feld. Voy. Novara, p. 159, t. xxiv. f. 9, 10.

Hab.—Celebes, Macassar (Wall.); Menado (Voll.).

A most beautiful and distinct species, excelling all others of this sub-group as those of Celebes so often excel their allies. Dr. Felder's name for this species is, I believe, of a later date than Vollenhoven's, though the two publications are of the same year.

26. *Thyca hæmorrhœa*, Vollenhoven.

Pieris hæmorrhœa, Voll. Mon. Pier. p. 10, pl. 2, f. 5, ♂.

Hab.—Banca (Leyden Mus.).

This very interesting species shows that the little island of Banca, though separated by a narrow strait only from Sumatra,

yet possesses its peculiar species of insects as it does of birds and mammals.

** Submarginal band beneath the lower wings white; nervures black and dilated.

27. *Thyca agostina*, Hewitson.

Picris agostina, Hew. Ex. Butt. vol. i. Pieris I. f. 1, 2, ♂.

Female.—Above: upper wings black, with ashy patches in the cell and between the nervures, and a row of elongate white spots near the outer margin; lower wings pale ochre-yellow, black-bordered behind, with a marginal row of ashy spots, and the nervures slightly margined with dusky atoms. Beneath as above, but the markings on the upper wings whiter and more defined, the lower wings bright ochre-yellow.

Hab.—North India (Coll. Hewitson and Moore).

28. *Thyca blanca*, Felder.

Pieris blanca, Feld. Wien. Ent. Monats. vi. p. 284.

Hab.—Luzon, Philippines.

This species seems to me nearer to *T. agostina* than to *T. themis* (with which Felder allies it), on account of the black-bordered veins of the upper wings beneath, which I think is a good character for arranging the species in a natural series.

29. *Thyca singhapura*, n. sp. (Pl. VII. fig. 2, ♂.)

Male.—Wings elongate; above, white, the costal margin and the outer half of the uppers dusky, nearly black at the apex, and with an ill-defined inner edge; lower wings with a narrow interrupted black border behind, within which dusky patches of scales extend a short distance along the nervures. Beneath: upper wings white, the nervures of the upper half black-margined, the apex blackish, leaving a row of six distinct ovate white spots; lower wings bright yellow, the nervures black-bordered, and a rather broad black border round the hind margin enclosing a row of six whitish spots, the inner ones bifid, the outermost yellow-tinged.

Expanse of wings $3\frac{1}{8}$ inches.

Hab.—Singapore (Coll. Wall.).

*** Beneath with nervures not black or dilated, submarginal posterior band red and white, or white.

30. *Thyca argenthona*, Fabricius.

Papilio argenthona, Fabr. Ent. Syst. III. i. p. 200, ♀.
Pieris protochiris, Bd. Sp. Gén. p. 457, ♀.

Male.—Above, like the female, but white instead of yellow, the apical and posterior bands narrower, margined within with an ashy tint. Beneath the same difference of tint and markings.

Hab.—Australia (Coll. Wall., B. M.).

31. *Thyca peribœa*, Godart.

Pieris peribœa, Godt. Enc. Méth. ix. p. 154; Bd. Sp. Gén. p. 453; Voll. Mon. Pier. p. 8.

Hab.—Java (Leyden Mus.).

This species has its affinity with *T. argenthona*, rather than near *Prioneris philonome*, where Boisduval places it, or near *T. hyparete*, according to Vollenhoven. The absence of black on the veins beneath and the white-bordered red spots indicate this.

32. *Thyca themis*, Hewitson.

Pieris themis, Hew. Ex. Butt. vol. ii. Pieris V. f. 31, 32, ♂.

Female.—Has the base dusky, the apical half of the uppers and a broad margin on the hind wings black, enclosing a few faint yellowish spots; the disc of the hind wings is pale yellow. Beneath, nearly as in the male, but with the black apex and hind margin rather wider, and the disc of the hind wings deeper yellow.

Hab.—Philippine Islands (Coll. Hewitson).

On the whole, I consider this species nearest to *argenthona*, with which it agrees in having the veins not black-bordered beneath, and a somewhat similar distribution of black and yellow on a white ground, the posterior band of spots being white instead of red.

**** White with a black border in both sexes, nervures not black and dilated beneath, posterior band yellow or white.

33. *Thyca gabia*, Boisduval.

Pieris gabia, Bd. Sp. Gén. p. 478, ♂; Voll. Mon. Pier. p. 38, ♀.

Hab.—Waigiou (Voy. Coquille); New Guinea (Voll.).

A rare species, which I did not myself meet with, and of which I have not seen a specimen.

34. *Thyca dice*, Vollenhoven.

Picris dice, Voll. Mon. Pier. p. 39, pl. 4, f. 7.

Hab.—New Guinea, Waigiou (Voll.).

Another closely allied species of this group, not in the English collections.

35. *Thyca ennia*, n. sp. (Pl. VII. fig. 4, ♂, ♀.)

Male.—Above, white, upper wings with the costa dusky, and a black border at the apex regularly curved within, enclosing two small white spots and terminating in a point at the outer angle; lower wings with a narrow hind border, not reaching the outer angle. Beneath: a row of five apical spots, the two uppermost of which are largest and yellow, the base of the lower wings yellow-tinged, and the hind border enclosing a line of narrow yellow spots.

Female.—Above, white, with a much broader dusky border to the anal angle, the base of the uppers dusky, and a band at the end of the cell connecting the costa with the outer border. Beneath, there is a band of six spots near the outer margin of the uppers, the second and third being larger and yellow; the base of the wings, the anal margin, and several marks between the nervures, are also yellow; the posterior band is much broader, its inner margin straight and just beyond the end of the cell, and has a submarginal row of six horizontal yellow spots.

Expanse of wings $2\frac{3}{6}$—$2\frac{5}{8}$ inches.

Hab.—Waigiou (Coll. Wall.).

This is very near *T. dice*, which seems intermediate between this and *T. gabia*. It is curious that all should be found in the same small island. The upper side of *T. dice* is, according to Vollenhoven's description, like my male, and the under side like my female.

* * * * * Females very dark, posterior band beneath red, nervures not black or dilated.

36. *Thyca bagoe*, Boisduval. (Pl. VII. fig. 3, 3 *a*, ♂, ♀.)

Pieris bagoe, Bd. Sp. Gén. p. 461, ♀.

Male.—Above, white; uppers with the costal margin and apex and a band from the costa to the middle of the outer margin,

black, leaving four white apical spots formed by the transverse nervures; lower wings white, with a very narrow border behind. Beneath: upper wings nearly as above; lower wings rich yellow at the basal and anal margins, and a rather broad black band behind, enclosing a row of six vermilion-red spots hardly separated by the nervures; the second and third spots from the anal angle are much the largest.

Expanse of wings 3 inches.

Hab.—Aru Islands (Wall. ♂, ♀); New Ireland (Voy. Coquille).

A fine species, commencing a series with dark females.

37. *Thyca mysis*, Fabricius.

Papilio mysis, Fab. Ent. Syst. III. i. p. 200. *Pieris mysis*, Godt. Encyc. Méth. ix. p. 150; Bd. Sp. Gén. p. 460, ♂.

Female.—Above: base of the wings tinged with yellow, marginal bands broader, and a row of five spots at the apex. Beneath: basal half of the wings yellow-washed, and the two upper apical spots yellow.

Hab.—Australia (Coll. Wall.).

38. *Thyca cruentata*, Butler.

Pieris cruentata, Butl. Proc. Zool. Soc. 1865, p. 455, pl. xxvi. f. 2. *P. mysis*, var. *lara*, Voll. Mon. Pier. p. 12.

Hab.—Mysol (B. M.); New Guinea (Leyden Mus.).

39. *Thyca pœcilea*, Vollenhoven.

Pieris pœcilea, Voll. Mon. Pier. p. 13, pl. 3, f. 3, ♂.

Hab.—Gilolo, Morty (Voll.); Batchian (Coll. Wall.).

My specimens from Batchian seem so near Vollenhoven's that I do not like to separate them. The red band beneath is broader in my insects, contains an additional small spot at each end, and melts into the orange tint of the anal angle. The female agrees more closely.

40. *Thyca candida*, Vollenhoven.

Pieris candida, Voll. Mon. Pier. p. 11, pl. 3, f. 2, ♂.

Hab.—Batchian (Leyden Mus.).

Vollenhoven places this species in the *hyparete* subdivision, but I think its affinities are with the *mysis* subdivision, on account of the

absence of thickened nervures beneath the anterior wings. It is not impossible that *T. herodias* from Gilolo may be the female of this, as many of the species of these two islands are identical.

41. *Thyca herodias*, Vollenhoven.

Pieris herodias, Voll. Mon. Pier. p. 14, pl. 3, f. 4, ♀.

Hab.—Gilolo (Leyden Mus.).

This curious form seems quite distinct from *T. pœcilea*, although very closely allied to it.

42. *Thyca timorensis*, Boisduval.

Pieris timorensis, Bd. Sp. Gén. p. 459, ♂ ; Voll. Mon. Pier. p. 12.

P. vishnu, Moore, Cat. Lep. E. I. C. pl. II a, fig. 5, ♀.

Hab.—Timor (Coll. Wall.).

This fine species appears to be best placed near *T. mysis*, from which it chiefly differs in the great extent of the black border. It is, however, equally closely allied to *T. isse*.

43. *Thyca philyra*, Godart.

Pieris philyra, Godt. Enc. Méth. ix. p. 150 ; Bd. Sp. Gén. 462 ; Voll. Mon. Pier. p. 15.

Papilio hyparete, Cr. 210 A, B, 339 E, F (*nec* Linn.).

Hab.—Amboina, Ceram (Coll. Wall., B. M.).

Vollenhoven says the females from *Sumatra* "have no black palmated patch on the lower wings beneath, but only the black nervures dilated." This agrees with Cramer's figure and with my specimen from *Amboina*. I have no hesitation, therefore, in considering the former locality as an error, more especially as the collector's name is not given.

44. *Thyca philotis*, n. sp. (Pl. VIII. fig. 4, ♂.)

Very near *T. philyra*, but with many points of difference, as follows :—

Male.—Above, the apical patch is much larger and the posterior border rather wider and not so clearly defined. Beneath : the boundary of the black colour on the upper wings is in a totally different line, passing across the end of the cell to a little above the outer angle, and leaving a large patch of white between it and

the cell; the base of the wing is purer yellow; on the lower wings the boundary between the black and yellow portions is nearer the base of the wing, the marginal red spots are smaller, and there is only a small detached portion in the cell.

Female.—Above: the basal portion of the wings is nearly pure creamy-white, and there is a row of small indistinct white spots along the hind margin. Beneath: the yellow colour of the base of the upper wings extends downwards, changing to white at the lower margin and touching the outer angle; the lower wings are almost exactly like those of *T. philyra* ♂, except that the red spots are rather broader and extend higher up near the abdominal margin. Size the same as of large specimens of *T. philyra*.

Hab.—Bouru (Coll. Wall.).

This is a beautiful local modification of *T. philyra* in an adjacent island.

45. *Thyca duris*, Hewitson.

Pieris duris, Hew. Ex. Butt. ii. Pieris V. f. 34, ♂.

Hab.—Ceram (Wall.).

This rare and very distinct species comes nearest to *T. philyra*. The female is unfortunately not known.

46. *Thyca isse*, Cramer.

Papilio isse, Cr. 55 E, F, 339 C, D. *Pieris isse*, Bd. Sp. Gén. p. 462; Voll. Mon. Pier. p. 14.

Hab.—Amboina, Ceram (Coll. Wall., B. M.).

An abundant species in the forests of these two islands.

47. *Thyca echo*, n. sp. (Pl. VIII. fig. 3, ♀.)

Very near *T. isse*, but with many points of difference, as follows:—

Male.—Above, the apical border of the upper wings is much wider, but does not extend so far towards the outer angle, it contains two minute white dots; the posterior margin of the hind wings is also broader and entirely black. Beneath: the disc of the upper wings is white, faintly yellow-tinged at the base, the spots at the apex are smaller, and the black border is quite differently shaped, curving from the costa at the end of the cell to about the middle of the outer margin; the lower wings are two-

thirds black, and one-third yellow, the division not being clearly defined as in *T. isse*.

Female.—Above: basal half of the wings pale yellow, the rest black without apical spots; beneath, the apical spots are very small, the black border of the uppers is shaped nearly as in the male, the part near the outer angle being white; the lower wings have the black extending a little further up, the band of orange spots very small, and the anal angle rich orange. Size the same as *T. isse*.

Hab.—Bouru (Coll. Wall.).

This species differs from *T. isse* in almost exactly the same points that *T. philotis* differs from *T. philyra*,—a very curious fact in connexion with the laws of variation, since it shows a definite modifying influence in particular localities, which effects the same changes in distinct species. I may remark also that in both cases the hind wings of the Bouru forms are more elongate than those of Ceram and Amboina.

* * * * * * Beneath: upper wings black, lower wings yellow, nervures not dilated.

48. *Thyca chrysomelæna*, Vollenhoven.

Pieris chrysomelæna, Voll. Tijd. voor Ent. 1866, p. 57, pl. i. f. 12.

Hab.—Kaioa Island (Moluccas). (Leyden Mus.)

This very beautiful species will come at the head of the *dorimene* subdivision, and is most nearly allied to *T. echidna*. It was obtained by the late Herr Bernstein in a small island, where I had myself captured several new species of *Coleoptera*, but, perhaps owing to the time of year, very few *Lepidoptera*.

49. *Thyca echidna*, Hewitson.

Pieris echidna, Hew. Ex. Butt. vol. ii. Pieris V. f. 35, 36.

Hab.—Ceram (Coll. Wall.).

I obtained only a single specimen of this distinct and beautiful species in the island of Ceram.

50. *Thyca hippodamia*, n. sp. (Pl. VIII. fig. 1, ♂.)

Male.—Above, white, the colours of the under surface showing

through; a narrow black border on the costal, outer, and hind margins; near the apex of the upper wings are four or five white spots, formed by a dusky transverse band from the outer margin, which does not reach the costa, and is crossed by black nervures; base of the wings dusky. Beneath: upper wings uniform black, with an apical band of five white spots; lower wings rich chrome-yellow, paler on the upper margin, with a rather broad black border, in which is a marginal row of white spots tinged with yellow.

Expanse of wings $2\frac{1}{2}$ inches.

Hab.—Aru Islands (Coll. Wall.).

A species which connects the preceding with *T. dorimene*, which has hitherto appeared completely isolated.

51. *Thyca dorimene*, Cramer.

Papilio dorimene, Cr. 387 C, D. *Pieris dorimene*, Bd. Sp. Gén. p. 464; Voll. Mon. Pier. p. 16.

Hab.—Ceram, Amboina (Coll. Wall., B. M.).

This pretty species is not uncommon in the forests of these islands.

52. *Thyca dorylæa*, Felder.

Pieris dorylæa, Feld. Voy. Novara, p. 182, ♀.

Hab.—Aru Islands (Coll. Felder).

A distinct form, allied to *T. dorimene*. Dr. Felder obtained it in an old Dutch collection. The locality may therefore be erroneous, though it is a probable one.

e. *Nysa* group.

53. *Thyca momea*, Boisduval.

Pieris momea, Bd. Sp. Gén. p. 477; Voll. Mon. Pier. p. 31.

Hab.—Java (Coll. Wall., B. M.).

54. *Thyca nysa*, Fabricius.

Papilio nysa, Fab. Ent. Syst. III. i. p. 195. *Pieris nysa*, Bd. Sp. Gén. p. 476, ♂, ♀.

Hab.—Australia (Coll. Wall., B. M.).

55. *Thyca lanassa*, Boisduval.

Picris lanassa, Bd. Sp. Gén. p. 477.

Hab.—Australia ("Paris Museum").

This appears to be near *T. nysa*. I have not seen a specimen, and it seems a rather doubtful species.

56. *Thyca orphne*, n. sp. (Pl. VIII. fig. 2, ♂.)

Form of the *Aspasia* group of *Picris*. *Male.*—Above, white, with the base dusky; upper wings with a narrow black border from the apex to near the outer angle, the costa dusky, as well as the extremity of the cell, and a broad marginal band beyond as if smeared with black; the lower wings have a very narrow dusky edging behind. Beneath: the uppers have the base dusky, a broad patch at the end of the cell nearly black, and a broad dusky outer margin, enclosing a row of six white spots, the two lower the largest; lower wings black, but nearly covered with chrome-yellow, which covers the whole abdominal margin to the middle of the wing, beyond which are three large oval spots near the outer angle; another band of yellow crosses the lower half of the cell, and reaches up to the inner margin near the base of the wing.

Expanse of wings $2\frac{3}{8}$ inches.

Hab.—Malacca (Mount Ophir) (Coll. Wall.).

This curious species is rather difficult to locate. Its neuration shows it to belong to the genus *Thyca*, and it seems best placed near *nysa* and *momea* on account of its black under wings beneath, although the amount of yellow with which it is adorned gives it a different aspect.

57. *Thyca georgina*, Felder.

Picris georgina, Feld. Wien. Ent. Monats. v. p. 298; Voy. Novara, tab. xxiv. f. 4, 5.

Hab.—Luzon, Philippines (Coll. Felder).

Judging by the form of the wings and the style of colouration, this species is allied to *T. orphne*, and comes in the *nysa* group.

Tachyris, n. g.

Head moderate, palpi long, acutely pointed; antennæ of moderate length, terminating in a slender club; thorax stout; abdo-

men slender. Anal valves of the male elongated and provided with a tuft of long and stiff hairs at each side at the base beneath, as shown in the accompanying figures, compared with the same part in allied genera:—

Fig 1.

Fig 2.

Fig 3.

Fig 4.

1. *Tachyris nathalia*, Felder.
2. *Tachyris nero*, Fabricius.
3. *Pieris agathon*, Gray.
4. *Pieris teutonia*, Fabricius.

Upper wings with the apex acute or much produced, two subcostal nervules given off before the end of the cell, the third of moderate length or very short, and in some species quite wanting; upper radial as a branch of the subcostal at some distance beyond the cell. Sexes often differing widely. Larva hairy, and with four or six longitudinal rows of spines; pupa with two lateral spines.

This genus does not differ materially in neuration from *Pieris*, but the remarkable character of the strong tufts of hair at the anal valves of the males enables us to bring together a number of allied forms, which, whenever the male sex is obtained, can be referred to the genus with the greatest certainty. It is restricted to the tropics, but comprises species from all the great divisions of the globe, and is particularly abundant in the Indian and Australian regions, comprising more than fifty species. The African species *sylvia*, Fab., and *eudoxia*, Drury, belong to this genus, and a few others allied to them; while in South America, *margarita*, Hübner, and several closely-allied species, appear to be its only representatives. In the Malay Archipelago, besides a host of species which present the usual white or yellow tints of the family, it contains others whose rich hues of cinnabar-red, orange, and greyish-blue, are altogether peculiar. Most of the species fly swiftly, and many of the males assemble in troops about wet places and on river margins, after

the manner of the genus *Callidryas*. The Eastern species may be conveniently arranged in the following groups :—

a. *Panda* group.	Male white or yellowish, fore wings elongated acute; female dark-bordered, wings more rounded.
b. *Liberia* group.	Male bluish or dark brown, fore wings acute; female dusky, or white and black.
c. *Nero* group.	Male red or orange, fore wings acute; female dusky.
d. *Pandione* group.	Broader, colours white and black; lower wings beneath dusky irrorated, with a spot on the disco-cellular nervule.
e. *Polisma* group.	Wings broad, delicate, white and black, not irrorated beneath; discoidal cells short.

a. *Panda* group.

1. *Tachyris Hombronii*, Lucas.

Pieris Hombronii, Luc. Rev. et Mag. de Zool. 1852, p. 325; Voll. Mon. Pier. p. 5, pl. 2, f. 3, ♀.

Hab.—Northern Celebes (Coll. Wall.).

This very fine species must come into the present genus, although at first sight it resembles *Thyca hyparete* and its allies. The species to which it is most closely allied is *Tachyris lynceola* (which inhabits Timor), of which it may be considered a large and modified form. It possesses the characteristic abrupt curvature near the base of the fore wings which is found in so many of the Celebes butterflies. (See Trans. Linn. Soc. xxv. pp. 14—19.)

2. *Tachyris cardena*, Hewitson.

Pieris cardena, Hew. Ex. Butt. vol. ii. Pieris III. f. 17, 18; Voll. Mon. Pier. p. 25.

Pieris hagar, Voll. Mon. Pier. p. 38, pl. 4, f. 6.

Hab.—Malacca, Borneo, Sumatra (Coll. Wall.).

My specimens are intermediate between Hewitson's and Vollenhoven's figures, and I have no doubt but that they represent

one rather variable species. It is somewhat aberrant in this group, but serves to connect *T. hippo* and *ada* with *T. nerissa*.

3. *Tachyris nerissa*, Fabricius.

Papilio nerissa, Fab. Ent. Syst. III. i. p. 192. *Pieris nerissa*, Bd. Sp. Gén. p. 535, ♂.

Papilio zelmira, Cr. 320 C, D, E, F. *Pieris zelmira*, Bd. Sp. Gén. p. 533, ♀.

Hab.—Indian Peninsula, Philippine Islands (Coll. Wall., B. M.).

The male is pretty constant and is well described by Boisduval. The female is very variable, some specimens being nearly white, with dusky costa, apex and connecting band, and the markings beneath, nearly obsolete; others are dusky brown, with patches on the upper and lower wings and submarginal spots white or buffy-white, while beneath they are richly banded and margined with chrome-yellow on a white and dusky ground. Innumerable varieties connect these extremes. The Philippine specimens are smaller, and the posterior band of the lower wings beneath crosses at the end of the cell. The markings of the under side of the male are sometimes nearly obsolete.

(*Pieris larissa*, Feld. Voy. Novara, p. 166.

Hab.—Unknown.

Is this not *amasene*, Cr., from China?)

4. *Tachyris lynceola*, Felder.

Pieris lynceola, Feld. Voy. Novara, p. 164, ♂.

Female.—Above, blackish-brown; upper wings with an oblong white patch notched exteriorly, situate below the cell and the second median nervule, and two small ovate white spots (the upper much the largest) just beyond the end of the cell towards the apex of the wings; lower wings with a large ill-defined white patch, occupying the disk of the wing and reaching the anterior and anal margins. Beneath, pearly white, with a broad rusty-brown border, and the two subapical spots rather larger and more diffused; there is also a faint yellowish longitudinal stripe in the discoidal cell of the uppers.

Expanse of wings $2\frac{1}{4}$—$2\frac{3}{8}$ inches.

Hab.—Timor (Coll. Wall.).

This differs very little from *T. lyncida* in the male, while the female is widely different.

5. *Tachyris lyncida*, Cramer.

Papilio lyncida, Cr. 131 B, ♂.
Pieris enyo, Bd. Sp. Gén. p. 481, ♂.
Pieris hippo, var., Voll. Mon. Pier. p. 42, ♀.

Hab.—Flores, Lombock, Baly, Java (Coll. Wall., B. M.).

The Java males vary somewhat, but are often undistinguishable from those of Baly and Lombock. For some time I considered *T. lynceola*, Feld., to be Cramer's *lyncida*, and described this as a new species:—

Male.—Above, like *T. lynceola* ♂, but the black border narrower, not enclosing the oval white apical spot, which is larger and bounded above by the powdery white costal band; on the hind wings the border is very narrow and vanishes before reaching the anal angle. Beneath, differs from *T. lynceola* in the same way as above, and has the margin of a paler brown. Larger and has rather more pointed wings than *T. lynceola*.

Female.—Varies much, but agrees well with the species described by Boisduval as *Pieris hippo* (Sp. Gén. p. 534), except that it is tinged beneath with pearly ash, with scarcely any yellow. The upper surface is sometimes rich ashy-brown, with only narrow stripes of pale yellow.

Expanse of wings varies from 2 to $2\frac{3}{4}$ inches.

6. *Tachyris lycaste*, Felder.

Pieris lycaste, Feld. Voy. Novara, p. 164, ♂.

Male.—Wings elongate, narrowed at the apex. Above, white, costa black-edged and dusky towards the base; outer edge of the uppers concave, with a narrow toothed blackish border not reaching the outer angle; lower wings with a very narrow black edging only near the outer angle. Beneath, white, the lower wings faintly tinged with ochreous-yellow, with a narrow yellow edging at the base; the margins as above, and a rather broad costal band pale brown.

Female.—Above, like *T. hippo*. Beneath, paler, lower wings pearly-ash, with a faint posterior marginal band, and the costal and subcostal nervures light brown.

Expanse of wings ♂ $2\frac{3}{4}$, ♀ $2\frac{5}{8}$ inches.

Hab.—Celebes (Coll. Wall.).

I had described this species before I received Dr. Felder's work. He was not acquainted with the female.

7. *Tachyris formosana*, Wallace.

Pieris formosana, Wall. Proc. Zool. Soc. 1866, p. 356.

Hab.—Formosa (Coll. Wall.); Siam (Coll. W. W. Saunders).

This species has the lower wings of the male beneath edged and washed with yellow, showing a beautiful transition from the preceding species to *T. hippo* and *T. ada*. A specimen from Siam in Mr. W. W. Saunders' Collection agrees closely with this, and one in the British Museum (locality unknown) has a pale sulphur-yellow tint spreading over most of the surface of the wing.

8. *Tachyris andrea*, Eschscholtz.

Pieris andrea, Esch. Voy. Kotzebue, pl. x. f. 23 a, b, ♂.

Female.—Above, dusky, the uppers with two white oval spots at the end of the cell as in the Timor form, and three elongate patches separated by the median nervules; the lower wings with a diffused discoidal white band. Beneath, as in the Timor specimens, but the posterior band is rather wider, and the costa of the hind wings has a margin of rich yellow, which is enlarged at the outer angle, where it joins the dark band.

Hab.—Philippine Islands (Coll. Wall., W. W. Saunders ♀).

The male figured by Eschscholtz has very elongated and pointed fore wings.

9. *Tachyris hippo*, Cramer.

Papilio hippo, Cr. 195 B, C, ♀. *Pieris hippo*, Bd. Sp. Gén. p. 534; Voll. Mon. Pier. p. 42.

Papilio phryne, Fab. Ent. Syst. III. i. p. 196, ♂.

Pieris eleonora, Bd. Sp. Gén. p. 481.

Hab.—N. India, Ceylon, Singapore, Sumatra, Philippine Islands (Coll. Wall., B. M.).

This species is distinguished from its allies by the clear ochre-yellow colour of the under surface of the lower wings in both sexes. A female from N. India in Mr. Moore's Collection has the wings coloured nearly as in the male, except that the apical spot is absent; the under side of the hind wings is ochre-yellow. The Ceylonese specimens are more richly coloured beneath.

10. *Tachyris enarete*, Boisduval.

Pieris enarete, Bd. Sp. Gén. p. 480, ♂; Guér. Voy. Favorite, pl. ii. f. 1.

Hab.—Borneo (Coll. Wall.).

Well described by Boisduval, who gives "Moluccas" as the

locality on the authority of M. Feisthamel. This is doubtless an error, as I took it in Borneo, and it is so closely allied to the *T. hippo* of Malacca and Sumatra.

11. *Tachyris scyllaria*, MacLeay.

Pieris scyllaria, MacLeay, King's Australia, p. 459; Bd. Sp. Gén. p. 482.

Hab.—West Australia.

I have not seen a specimen of this species.

12. *Tachyris ada*, Cramer.

Papilio ada, Cr. 363 C, D, ♂. *Pieris ada*, Bd. Sp. Gén. p. 479; Voll. Mon. Pier. p. 41, pl. 5, f. 3, ♀.
Pieris cilla, Feld. Voy. Novara, p. 165.

Hab.—Bouru, Ceram, Amboina, Mysol, Aru Islands, New Guinea (Coll. Wall.).

This fine species scarcely differs in all the above localities where I myself captured it. Boisduval describes the male well, but errs as to the female, which he had probably never seen. This is well described and figured by Vollenhoven.

Dr. Felder describes the Aru form as a distinct species, and it certainly presents more marked differences than those of the other localities; some specimens from Bouru and Ceram approach it very closely, but it is generally larger in size, and in both sexes has much more and deeper coloured rich orange tint in the abdominal region beneath; there is also a pale or nearly white spot near the outer angle; yet these differences seem hardly definite enough to characterize a species.

13. *Tachyris clavis*, n. sp.

Male.—Differs from *T. ada* only by the rather broader posterior band of the hind wings both on the upper and under surfaces.

Female.—Above, differs from *T. ada* in the ground colour being white, not at all tinged with yellow or green, but rather bluish, and with a violet shade across the base of the upper and the middle of the under wings, and in the borders being much broader, of a browner colour, and less dentated. Beneath, there are similar differences, the chief being the much larger posterior border on the hind wings, and the basal half being entirely yellow, with

orange patches near the anal and outer angles. Size the same as *T. ada*.

Hab.—Ké Island (Coll. Wall.).

The female of this form differs so strikingly in appearance from that of *T. ada*, which is nearly constant through a wide range of localities, that I am induced to separate it, although, like the various forms allied to *T. hippo*, the differences are not such as are usually considered to be specific.

14. *Tachyris abnormis*, n. sp. (Pl. VIII. fig. 5, ♀.)

Female.—Fore wings with the outer margin more rounded than in the female of *T. ada*. Above, pearly white, the body and adjacent parts of the wings with a faint greenish tinge; upper wings with the costal margin dusky, and a large subtriangular apical patch extending from the middle of the costa to the outer angle blackish-brown; lower wings with a border of the same colour, widest at the outer angle and not reaching to the anal angle. Beneath, upper wings as above, with the base ochre-yellow, and a small elongate patch of cinnabar-red, situate half way down the cell close to the subcostal nervure; under wings entirely brown-black, the base tinged with ochreous-yellow, which extends a short distance along the costal and anal margins.

Expanse of wings $2\frac{3}{4}$ inches.

Hab.—New Guinea (N. W. extremity) (Coll. Wall.).

This very remarkable species appears to come best here. In colouration it bears a striking general resemblance to the beautiful nymphalideous butterfly, *Mynes Geoffroyi*, which inhabits the same country.

15. *Tachyris panda*, Godart.

Pieris panda, Godt. Enc. Méth. ix. p. 147; Bd. Sp. Gén. p. 485; Voll. Mon. Pier. p. 44.

Pieris sulphurea, Voll. Mon. Pier. p. 32, pl. 4, f. 4, ♀.

Hab.—Java, ♂, ♀, B. M. (Horsfield).

This species appears to be confined to the island of Java. It is well described by Godart and Boisduval, and there can be no doubt that Vollenhoven's *sulphurea* is the female, and the locality, "Moluccas," which he gives from Reinwardt, an error. It is represented in the other western islands and in Celebes, by *T. nathalia*, Feld., which also occurs in Java, most likely inhabiting a separate district in that island.

16. *Tachyris nathalia*, Felder.

Pieris nathalia, Feld. Wien. Ent. Monats. vi. p. 285.

Hab.—Java, Singapore (♂, ♀), Sumatra, Borneo, Celebes (♂), Philippine Islands (♂) (Coll. Wall.).

Male.—Above, creamy white with a faint greenish tinge; upper wings with the costal and outer margins narrowly black-bordered, and the apex somewhat dusky. Beneath, bright ochre-yellow; all but the apex and basal part of the uppers much paler or whitish, costal and outer margins finely black-edged. Head and neck olivaceous, thorax and abdomen ashy. The specimens from Celebes are paler and have a much narrower dark border. Those from the Philippines have a rather broader border, and a narrow one on the hind wings.

Expanse of wings $2\frac{1}{2}$ inches.

Female.—Above, sulphur-yellow; upper wings with the basal third dusky; a black border from near the base of the uppers to the anal angle of the lower wings broader on the uppers and enlarged at the apex, its outline toothed within near the outer angle of the lowers. Beneath, upper wings with a black-curved band from the middle of the costa to the outer angle, the disc sulphur-yellow, the base deep yellow, the apex light violet-ash with a yellow margin; lower wings pale ochre-yellow, with a faint violet tinge, with a narrow border of rich yellow from the base to the anal angle.

Expanse of wings $2\frac{3}{8}$ inches.

A specimen from Singapore and one from Java exactly agree with this description. It also exactly agrees with Vollenhoven's figure and description of *sulphurea* (*T. panda*, ♀), except in possessing the narrow border of bright yellow beneath. Some Singapore specimens are very pale yellow above, and have the lower wings tinged with ochre-yellow beneath. Dr. Felder's description of the male refers to a Malacca specimen; the Philippine form having a distinct border to the hind wings, and a dusky patch near the outer angle of the fore wings beneath, is almost sufficiently distinct, in such a group as this, to deserve a separate name.

17. *Tachyris paulina*, Cramer.

Papilio paulina, Cr. 110 E, F, ♀.

Catophaga leis, Hübn. Zutr. 771, 772, ♀.

Pieris neombo, Bd. Sp. Gén. p. 539, ♀; Moore, Cat. Lep. E. I. C. pl. II. a, f. 3.

Pieris albina, Bd. Sp. Gén. p. 480, ♂.
Pieris galene, Feld. Voy. Novara, p. 165, ♂ var.
Pieris darada, Feld. *ib.* p. 166, ♂ var.

Hab.—(Males.) N. India, S. India, Penang, Java (Horsf., B. M.), Celebes, Bouru, Ceram, Gilolo, Batchian (Coll. Wall.), Obi?, Morty?, Philippines (Wall.).
(Females, *white*.) N. India, Bengal, Ceylon, Philippines (W. W. Saund.), Bouru (Wall.), Obi, Morty (Voll.), Timor, Lombock, Amboina (Wall.).
(Females, *yellow*.) Batchian, Aru Islands, Makian, (Wall.), Java (Horsf.).

The males vary from pure white with only a dusky costa, to such as have a dusky outer border extending up the nervures of the upper wings, and formed of small spots at the end of the nervures of the hind wings; and the females show every gradation from the delicately coloured form of the Moluccas (*neombo*, Bd.) to the darkest specimens of *paulina*, Cr. All the males, however, have the under surface of two tints—white and pale ochre, and the females all have a glossy tint of pearly white on the underside of the hind wings. The yellow form is described by Boisduval as a variety of *neombo*. The specimen from Gilolo, described by Vollenhoven (Mon. Pier. p. 36), seems intermediate, having the upper side yellow, while the under side is pearly white, the disc of the uppers only being yellow. I am informed by Mr. Semper that he possesses also from the Philippines specimens of these two forms with some which connect them.

18. *Tachyris Rouxii*, Boisduval.

Pieris Rouxii, Bd. Sp. Gén. p. 481, ♂.

Hab.—Punjaub, N. India (B. M., Coll. Hewitson, ♂).

This differs from *T. paulina*, ♂ (*albina*, Bd.), only in having the under surface uniform white.

19. *Tachyris psyche*, Felder.

Pieris psyche, Feld. Voy. Novara, p. 166.

Hab.—New Caledonia (Feld.), New Hebrides (Coll. W. W. Saunders).

This form differs from the rest by the lower wings and the apex of the uppers being "saffron yellow" beneath.

20. *Tachyris galathea*, Felder.

Pieris galathea, Feld. Verh. z.-b. Ges. Wien. 1862, p. 485; Voy. Novara, p. 165.

Hab.—Nicobar Islands.

This appears hardly different from *T. paulina* (*T. albina* and *T. leis*).

21. *Tachyris ega*, Boisduval.

Pieris ega, Bd. Sp. Gén. p. 536, ♂; Guér. Voy. Favorite, pl. ii. f. 2, ♂.

P. melania, Bd. Sp. Gén. p. 537 (*nec* Fab.), ♀.

Hab.—Australia (Coll. Wall., B. M.), New Caledonia (B. M.).

Specimens from Moreton Bay have the under side of the lower wings of the female richly bordered with orange both on the upper and anal margins. A female from New Caledonia in the British Museum is small, and on the under side has the uppers yellow at the base, and the disc of the lower wings uniform rich ochre-yellow. Two others from Australia have the disc of the lower wings beneath white, narrowly edged with orange. A small male from Lord Howe's Island, in the British Museum, has the wings more acute and only one spot on the uppers. This is decidedly not the *Papilio melania* of Fabricius, which has not yet been properly identified, and probably never will be.* It is therefore better to omit it altogether, since we most likely possess the same insect under some other name.

22. *Tachyris urania*, n. sp.

Male.—Above, white; base of uppers and costa to the middle gray, thence with a black border to near the outer angle, broader at the apex and extending in points along the radial and median nervules; an indistinct black line connects these points across the apex, and a sublunate spot between the second and third median nervules; lower wings entirely white. Beneath: upper wings white, their apex and the lower wings pale lemon-yellow; the costa, the extreme apex, and the transverse line faintly dusky; the sublunate spot as above, but connected to a smaller indistinct spot at the extremity of the second median nervule; lower wings

* Fabricius says, "alis posticis subtus obscure glaucis," and Godart, "le dessous des ailes inférieures est d'un vert-blanchâtre obscur." This is therefore evidently *not* the *P. melania* of Boisduval (the ♀ of his *P. ega*), which has the lower wings beneath pale yellow and rich orange.

with a group of dusky atoms just below the discoidal cell, and another barely visible near the outer angle.

Expanse of wings $2\frac{9}{10}$ in.

Hab.—Tondano, mountains of N. Celebes (Coll. Wall.).

This fine species has the hind wings broad and elongated almost as in *T. paulina*, but it is most nearly allied to *T. Jacquinotii*.

23. *Tachyris Jacquinotii*, Lucas.

Pieris Jacquinotii, Luc. Rev. et Mag. de Zool. 1852, p. 326, ♂; Voll. Mon. Pier. p. 43.

P. zoe, Voll. Mon. Pier. p. 37, pl. 4, f. 5, ♂.

P. agave, Feld. Wien. Ent. Monats. vi. p. 286, ♂, ♀.

Female.—Above, very like *T. paulina*, but the base of the lower wings as well as the uppers is dusky, and the black border is broad at the outer angle, and diminishes to a point at the anal angle, being bounded above by a bluish shade in reversed proportions, which indents it between the nervures. Beneath, differs from *T. paulina* chiefly by the hind wings being pale ochre-yellow, with a posterior submarginal angulated band not reaching the anal angle, and the space beyond this is dusky-yellow.

Expanse of wings $2\frac{1}{4}$—$2\frac{1}{2}$ inches.

Hab.—(Males.) Batchian, Bouru, Ceram, Philippines (Coll. Wall.); New Caledonia (Coll. W. W. Saunders).

(Females.) Batchian, Ceram (Wall.); Philippines (Feld.).

I have specimens connecting *T. Jacquinotii* and *T. zoe*, and the females from the two localities do not differ. The Philippine male is rather more yellow beneath, and the New Caledonian still deeper yellow, but even the Moluccan specimens differ considerably in tint.

24. *Tachyris alope*, Wallace.

Pieris amasene, Bd. Sp. Gén. p. 535, ♂ (*nec* Cr.).

Female.—Differs from that of *T. Jacquinotii* above only by having the costa more broadly black, and by the marginal band on the hind wings being broader and not bounded above by a bluish shade. Beneath differs only by the transverse apical band being broader.

Hab.—(Males.) Java, Sumatra, Borneo (Coll. Wall.); India.

(Females.) Java (Wall.); Sumatra and India (B. M.); India (Moore), uniform yellow on lower wings beneath.

Vollenhoven (Mon. Pier. p. 35) describes as the female of this, that which I consider a variety of *paulina*, and which Boisduval described as *neombo*. It is true these resemble each other more than the pairs I have placed together, but that proves little. Horsfield paired them as I do, and the analogy of the sexes of *T. cga*, from Australia, is in its favour.

The Indian males and one from Sumatra (B. M.) are much deeper yellow beneath, but the markings agree exactly.

25. *Tachyris amarella*, n. sp. (Pl. IX. fig. 2, ♀.)

Female.—Wings rounded, outer margin of uppers concave. Above, sulphur-yellow; costa and base of uppers dusky, a broad black border occupying the outer half of both the wings, angulated on the inner margins; a row of five yellowish spots across the uppers, the second and third largest. Beneath: the dark band is violet-brown, paler near the margin, the spots violet-white, and there are two more indistinct spots near the outer angle; the base of the upper wings is orange, and the disc of the lower whitish, covered with light-brown scales.

Expanse of wings $2\frac{1}{10}$ inches.

Hab.—New Caledonia (one specimen, B. M.).

Probably near *T. alope*.

26. *Tachyris acrisa*, Boisduval.

Pieris acrisa, Bd. Bull. Soc. Ent. Fr. 1859, p. 156, ♂.

"Size and form of *P. amasene*, (Bd., *nec* Cramer), which it completely resembles above. Beneath, it is entirely different from all the species of this group; the whole underside of the hind wings and the tip of the fore wings are a clear yellow-ochre, with a row of submarginal black spots." (Boisd.)

Hab.—Woodlark Island (East of N. Guinea).

Differs from *T. alope* as *T. psyche* does from *T. paulina*.

27. *Tachyris leptis*, Felder.

Pieris leptis, Feld. Voy. Novara, p. 163.

P. paulina, Bd. Sp. Gén. p. 538 (*nec* Cramer).

Hab.—Java, Borneo, N. India (♂, ♀, B. M., Coll. Wall.).

My specimen from Borneo is rather larger than the type from Java, and has a narrow black border only near the outer angle of the lower wings. Boisduval's description of both sexes is good, but

he omits to mention that the underside of the female is slightly dusky, caused by a few groups of ashy scales, and that the yellow margin is very indistinct. This is decidedly not the *paulina* of Cramer, whose figure represents a different insect, to which Boisduval's description of the female perhaps refers. I had named and described this species before receiving Dr. Felder's work.

b. *Liberia* group.

28. *Tachyris celestina*, Boisduval. (Pl. VIII. fig. 6, 6 *a*, ♀.)

Pieris celestina, Bd. Sp. Gén. p. 484; Hew. Ex. Butt. vol. ii. Pieris IV. f. 29, 30, ♂; Voll. Mon. Pier. p. 46.

Female.—Above, bluish-white or rich yellow; basal triangle dusky; broad border and apical triangle black, with four subapical spots of the colour of the disc. Beneath, the markings as above; in the white variety the disc pearly-white, the base of the uppers and the abdominal margin of the hind wings yellow, the costal margin of the hind wings chrome yellow, the apex of the upper and the outer margin of the hind wings purplish-ashy, the white spots diffused; in the yellow variety the border is deep and nearly uniform purplish-brown, the disc and spots of the uppers yellow as above, the disc of the hind wings pale ochre, with the costal and abdominal margins yellow. Head and thorax blackish, with dusky hairs. Antennæ dusky, obscurely ringed with white beneath.

Hab.—(Males.) New Guinea, Salwatty, Waigiou, Mysol, Aru Islands (Coll. Wall.).

(Females.) Aru Islands, Waigiou (Coll. Wall.).

The specimens described by Boisduval and Vollenhoven as females are males, as can be easily seen by examining the anal valves; specimens exactly similar are in my collection. From the close resemblance of the male to *T. Jacquinotii*, except in colour, I am strongly inclined to believe that the specimens above described are females of this species, a view which the localities above given renders probable. I obtained several of these females of both colours, varying somewhat in details, but evidently forming two distinct types of that sex, as occurs in *T. paulina*, and in both sexes in *T. cycinna*.

29. *Tachyris clementina*, Felder.

Pieris clementina, Feld. Sitz. Akad. Wiss. xl. p. 448, ♂; Voy. Novara, tab. xxv. f. 6.

Hab.—Amboina (Coll. Felder).

Female.—Above, exactly like *T. Jacquinotii*, ♀, but the black posterior border is not regularly scalloped between the nervures. Beneath, upper wings marked as in *T. celestina* ♀, but tinged with greenish-yellow, the tip deep ochre-yellow; lower wings ochre-yellow, the band and obscure submarginal spots (sometimes obsolete) as in *T. celestina* ♀.

Hab.—Ceram (Coll. Wall. and W. W. Saunders).

If I have rightly paired the sexes of *T. celestina*, then this is no doubt the female of *P. clementina*, Amboina and Ceram having in almost every case the same species of insects.

30. *Tachyris athama*, Lucas. (Pl. IX. fig. 1, ♀.)

Pieris athama, Luc. Rev. & Mag. de Zool. 1852, p. 336, ♀; Voy. au Pôl. Sud, Lep. pl. 1, f. 10, 11; Voll. Mon. Pier. p. 36.

Female.—Upper wings pointed, outer margin concave. Above, deep sulphur-yellow, sometimes orange-tinged; costal margin dusky, a broad jet-black marginal band forming a large triangle at the apex of the uppers, its inner border notched and enclosing three yellow spots, two close together near the apex, and one near the middle of the margin; band of the lower wings angulated within, leaving a narrow toothed yellow edging near the outer angle, and terminating at the anal angle. Beneath: disc of upper wings yellow, their base orange, their tip violet, with three whitish spots at the edge of the transverse notched black band; lower wings pearly-white, with a broad marginal band, violet without and nearly black within, a small spot on the outer and anal angles, and an edging along the inner margin rich chrome-yellow.

Expanse of wings $2\frac{1}{4}$—$2\frac{3}{8}$ inches.

Hab.—New Caledonia (B. M., Coll. Hew.); "Balaou, N. Guinea" (Jacquinot).

A very beautiful insect, near the female of *T. celestina*. Lucas describes it as "blanc jaunâtre" above, and it is so represented in the "Voy. au Pôl. Sud," which also gives the hind border too narrow, so that the insect is hardly recognizable.

31. *Tachyris cynisca*, n. sp.

Female.—Wings triangular, somewhat acute. Above, white, with a blackish border from the middle of the costa to the anal angle, of the same form on the uppers as in *T. Jacquinotii* ♀, base of uppers dusky-grey, deepening along the costa into the border, two very indistinct pale spots near the apex. Beneath: uppers

white, with the dark band browner, the apex ashy-violet, base of the wings yellow tinged; lower wings pearly-white, the border glossy purplish-ash, uniform; the inner margin with a fine yellow edging.

Expanse of wings $2\frac{1}{8}$ inches.

Hab.—Bouru (Coll. Wall.).

This is probably the female of a species allied to some of the preceding. It combines the characters of several of them.

32. Tachyris eumelis, Boisduval.

Pieris eumelis, Bd. Sp. Gén. p. 516.

Hab.—New Ireland (Voy. Coquille).

Appears to be near *T. cynisca*. I have not seen a specimen.

33. Tachyris panthea, n. sp.

Form and size of *T. nathalia* ♀.

Female.—Above, sulphur-yellow, the base broadly dusky-black, the costa and outer margin to the anal angle broadly black.

Beneath, like *T. nathalia* ♀, but the disk of the upper wings yellow, the apical band much wider; the hind wings with a broader pearly border, and a submarginal dusky sinuated band not reaching the outer or the anal angles.

Hab.—Philippine Islands (Coll. Hewitson and B. M.).

The yellow colour is very powdery and easily rubs off, so that worn specimens are white. The male will be like either *T. nathalia* or *T. zamboanga*.

34. Tachyris cycinna, Hewitson.

Pieris cycinna, Hew. Ex. Butt. vol. ii. Pieris IV. f. 23, 26, ♂.
P. ocina, Hew. *l. c.* f. 24, 25, ♀.

Hab.—Aru Islands (Coll. Wall.).

In my collection I have two males and two females, forming two pairs, which agree exactly, except that on the underside the lower wings and the base of the uppers are in one pair pure yellow, in the other bright orange. As they are all from the same locality it is probably one of those cases in which a decided variation occurs in the same brood, with no intermediate links.

35. *Tachyris corinna*, n. sp.

Male.—Above, exactly like *T. liberia*. Beneath, the upper wings have a black border along the outer margin, broadest at the apex and regularly narrowing to the outer angle; just within this at the apex is a spot yellower than the rest of the wing; the lower wings are uniform chrome-yellow, with a narrow black outer border, whereas there is a mere edging in *T. liberia*, which has a border of light yellow.

Expanse of wings $1\frac{3}{8}$ inch.

Female.—White, base of wings broadly dusky, shading into a broad black border, which is broadest at the apex and reaches the anal angle. Beneath: the border is of the same width and purplish, the disk of the uppers is greenish-white, with the base yellow, the lower wings are deep yellow.

Expanse of wings $1\frac{1}{8}$ inch.

Hab.—Waigiou (Coll. Wall.).

While the male so closely resembles *T. liberia* that it seems to have been considered the same species, the female differs altogether, being more like *T. cycinna* (*ocina*, Hew.).

36. *Tachyris liberia*, Cramer.

Papilio liberia, Cr. 210 G, H, ♂. *Pieris liberia*, Godt. Enc. Méth. ix. p. 814; Bd. Sp. Gén. p. 484; (*nec* Voll.).

Female.—Above, bluish-ashy, the basal half and costa dusky; upper wings with a rather narrow black border, broadest at the apex and narrowing to the outer angle, its inner edge scalloped between the nervures; lower wings with a very narrow outer border, slightly produced along the nervures. Beneath, upper wings greenish, their tips and the whole surface of the lower wings chrome-yellow; two or three dusky spots near the outer angle at the margin; a very fine black edging round the wings. Hind margin straighter than in *P. eliada* ♀.

Expanse of wings $2\frac{1}{4}$ inches.

Hab.—Amboina (Coll. Wall.).

This species, well figured by Cramer, appears to be restricted to the small island of Amboina, since upon the adjacent island of Ceram another species is found which extends to Batchian, and which Vollenhoven supposed to be *T. liberia*, owing to his not having an Amboina specimen with which to compare it. The

rich chrome-yellow of the under surface in both sexes at once distinguishes Cramer's species.

37. *Tachyris eliada*, Hewitson.

Pieris eliada, Hew. Ex. Butt. vol. ii. Pieris IV. f. 27, 28, ♂.
P. liberia, Voll. Mon. Pier. p. 45, pl. 5, f. 4, ♀ (*nec* Cram.).

Hab.—Batchian, Ceram (Wall.), Obi (Voll.)

38. *Tachyris placidia*, Stoll.

Papilio placidia, Stoll, Suppl. Cr. pl. 28, f. 4, 4c, ♂. *Pieris placidia*, Bd. Sp. Gén. p. 483; Voll. Mon. Pier. p. 46, pl. 5, f. 5, ♀.

Hab.—Amboina, Batchian, Ceram, Morty, Waigiou (Wall.); Gilolo, Ternate (Voll.).

A curious species, with a peculiarity of colour hardly to be found elsewhere among *Lepidoptera*.

39. *Tachyris fatima*, Vollenhoven.

Pieris fatima, Voll. Tijd. v. Ent. 1866, p. 59, pl. 2, f. 1, 2, ♀.

Hab.—Celebes (Leyden Mus.).

This fine new species seems closely allied to the hitherto isolated *T. placidia*.

c. *Nero* group.

40. *Tachyris nero*, Fabricius.

Papilio nero, Fab. Ent. Syst. III. i. p. 153. *Pieris nero*, Bd. Sp. Gén. p. 485.
Pieris thyria, Horsf. Zool. Journ. iv. p. 69, t. 4, f. 2.

Hab.—N. India, Singapore, Sumatra, Java, Borneo (Coll. Wall.).

The specimens vary considerably in tint and in size, and slightly in form, but there are no well marked races in any of the above localities. The Borneo specimens seem to have rather acuter and more falcate wings.

41. *Tachyris galba*, n. sp.

Male.—Wings much more acute than *T. nero*, but less so than

T. zarinda; outer margin of fore wings concave to the apex; anal angle slightly produced. Above, colour the same as *T. nero;* upper wings with the base and costa dusky; a black border rather broad at the apex and vanishing at the outer angle, extending in points on the nervures, which are all black; a row of fine dusky sagittate spots on the nervures within the border, and a small angular spot at the upper corner of the discoidal cell. Lower wings with a narrow interrupted border, formed of spots across the ends of the nervures, from which a black line extends a short distance along each; base of the wings dusky. Beneath, hardly differs from *T. nero*, except that the submarginal spots on the upper wings are less defined and further from the margin.

Expanse of wings 3¼ inches.

Hab.—N. India (Coll. Moore).

This fine insect has a very distinct form from either of its allies, and probably inhabits some limited region of N. India.

42. *Tachyris domitia*, Felder.

Pieris domitia, Feld. Wien. Ent. Monats. vi. p. 285.

Hab.—Luzon, Philippine Islands (Coll Wall.).

Hardly distinguishable from *T. nero*. Has rather broader fore wings, and generally a distinct dusky band across the hind wings beneath; the first and second median nervules of the upper wing are not black, as they seem always to be in *T. nero*.

43. *Tachyris zarinda*, Boisduval.

Pieris zarinda, Bd. Sp. Gén. p. 486, pl. 18, f. 4.

Hab.—Celebes, Sula Islands (Coll. Wall.).

This fine species varies much in colour, like *T. nero*.

44. *Tachyris bouruensis*, n. sp.

Female.—Above, red; base of all the wings dusky black, paler on the lower wings downwards to the anal angle, extending to the end of the cell in the uppers, where it sends off a prolongation at right angles to near the border, and then branches downwards in a waved submarginal line, distinct on the upper but almost obsolete on the lower wings; the costa narrowly black to the apex, which is black, whence a border of moderate width, and dentate on its inner edge, extends to the anal angle. Beneath: upper

wings light red, their apex and the lower wings pale reddish-ochre; a transverse irregular band beyond the end of the cell blackish, the outer border and a submarginal band on the lower wings dusky.

Wings rather elongated, their expanse $3\frac{1}{8}$ inches.

Hab.—Bouru (Coll. Wall.).

This insect may not improbably be the female of *T. zarinda*, some species of birds being common to Celebes and Bouru; but as it is quite as likely to be a distinct species I have thought it better to describe and name it. The specimen is unique in my collection.

45. *Tachyris zamboanga*, Felder.

Pieris zamboanga, Feld. Wien. Ent. Monats. vi. p. 285, (♂ ?); Voy. Novara, tab. xxiv. f. 2, 3.

Hab.—Mindanao.

"Near *melania*, Fab.," Feld. The figure in the Novara Voyage shows the female form of anal extremity, and it seems to me to be allied to *T. celestina* ♀. If, however, it be, as Dr. Felder says, a male, then I cannot help thinking that *T. asterope* is the female of it, and that it serves to connect the *celestina* group with *T. nephele*.

46. *Tachyris asterope*, Felder.

Pieris asterope, Feld. Wien. Ent. Monats. vi. p. 286, ♀.

Hab.—Luzon (Coll. Wall.).

"Near *T. zamboanga*; above, like *T. margarita*, Hübn." (Feld.). Very like *T. celestina* ♀, to which it may be allied.

47. *Tachyris ithome*, Felder.

Pieris ithome, Feld. Wien. Ent. Monats. iii. p. 4, tab. 3, f. 1, ♂; Voll. Mon. Pier. p. 39, pl. 5, f. 1, ♀.

Hab.—Macassar, S. Celebes (Wall.); N. Celebes (Voll.).

This species and the next form a little group of very peculiarly marked *Pieridæ*.

48. *Tachyris nephele*, Hewitson.

Pieris nephele, Hew. Ex. Butt. vol. ii. Pieris V. f. 33, ♂; Feld. Wien. Ent. Monats. v. p. 299, vi. p. 287, ♀.

Hab.—Luzon, Philippine Islands (Coll. Wall.).

Allied to *T. ithome*, which both sexes resemble.

d. *Pandione* group.

49. *Tachyris pandione*, Hübner.

Hipposcritia pandione, Hübn. Zutr. 651, 652, ♂. *Pieris pandione*, Bd. Sp. Gén. p. 537, ♀.
Pieris paulina, var., Voll. Mon. Pier. p. 33.

Hab.—Java (B. M., Coll. Wall.).

50. *Tachyris Lucasii*, Wallace.

Pieris pandione ♂, Bd. Sp. Gén. p. 537 (*nec* Hübner).
P. paulina, var., Voll. Mon. Pier. p. 33.

Male.—Above, almost exactly the same as *T. leptis*, Feld. (*paulina*, Bd.) and *T. indra*, Moore, ♂; the apex of the wings is, however, more produced, and the outer margin slightly concave, the hind margin and the ends of the nervures are finely dusky. Beneath, the black band across the uppers is shaped nearly as in *T. leptis*, but it has a sagittate white spot within it at the lower part; there is a faint dusky patch at the base of the cell, and the apex is amber-brown; the lower wings are closely speckled with dusky yellow-brown, across which are several darker waved or zigzag bands. The spot on the disco-cellular nervule is whitish and indistinct.

Expanse of wings $2\frac{6}{10}$ inches.

Hab.—Java (Coll. Wall.).

This species is very distinct from that with which it has been confounded. It is much nearer the male of *T. indra*, but that species differs slightly in form, and has a black disco-cellular spot on the underside of the lower wings.

51. *Tachyris indra*, Moore.

Pieris indra, Moore, Proc. Zool. Soc. 1857, p. 103, pl. 44, f. 5, ♀.

Male.—Above very like *T. leptis*, but the band on the uppers is rather narrower and does not pass the first median nervule, the white spots vary from two to four; the hind wings have only a trace of black at the outer angle, and a minute black marginal dot, sometimes obsolete, between each pair of nervules. Beneath, the upper wings are white, greenish at the base, and pale ochre-brown at the apex, with the transverse black band much narrower than in *T. leptis*, the lower wings are pale ochre-yellow,

with groups of dusky atoms disposed in irregular macular bands, and a black disco-cellular spot.

Expanse of wings $1\frac{3}{8}$ inch.

Hab.—N. India (Coll. Wall., B. M.).

Pieris colimba, Bd., quoted by Moore, appears to be a MS. name, and should be altogether dropped.

52. *Tachyris phœbe*, Felder.

Picris phœbe, Feld. Wien. Ent. Monats. v. p. 299; Voy. Novara, tab. xxv. f. 5, ♂.

Hab.—Luzon, Philippine Islands (B. M.).

This species comes nearest to *T. indra*.

53. *Tachyris zamora*, Felder.

Picris zamora, Feld. Wien. Ent. Monats. vi. p. 286, ♂.

Hab.—Mindoro, Philippine Islands (Coll. Semper).

Dr. Felder considers this only a local modification of *T. phœbe*.

54. *Tachyris lalage*, Doubleday.

Pieris lalage, Doubl. Gen. of Diur. Lep. pl. 6, f. 3, ♀.

P. durvasa, Moore, Proc. Zool. Soc. 1857, p. 103, pl. 44, f. 6 (err. 4), ♂.

Hab.—N. India (Coll. Moore, B. M.).

The finest species of this group; common in collections from Darjeeling.

e. *Polisma* group.

55. *Tachyris polisma*, Hewitson.

Pieris polisma, Hew. Ex. Butt. vol. ii. Pieris VI. f. 38, ♂; vol. iii. Pieris VIII. f. 55, ♀; Voll. Tijds. v. Ent. 1866, pl. 1, f. 3, 4, ♀.

Hab.—Macassar (Wall.); N. Celebes. (Voll.).

This curious little butterfly differs from every other species of *Pieridæ* in the shortness of its discoidal cells. It agrees, however, with *T. pandione* and allies, in having the tuft of bristles at the base of the anal valves of the male very well developed.

56. *Tachyris illana*, Felder.

Pieris illana, Feld. Wien. Ent. Monats. vi. p. 287, ♂.

P. ægis, Feld. *lib. cit.* v. p. 299; Voy. Novara, pl. xxiv. f. 1, ♀.

Hab.—Mindanao, Philippines (Coll. Wall.).

The occurrence of a species closely allied to *T. polisma* in Mindanao, is another example of the zoological connexion of this island and Celebes. *T. illana* marvellously resembles *Pieris cynis*, although it differs in important structural characters, such as the length of the discoidal cell, the structure of the anal valves, and the form of the club of the antennæ. I have little doubt but that *P. ægis* of Felder is the female of this species.

PRIONERIS, n. g.

Antennæ long, with a gradually thickened obconic club; head small, forehead very hairy, with the blunt terminal joint of the palpi not projecting much beyond it; body stout, anal valves of the male large, ovate, not tufted.

Upper wings triangular, the costa thickened and strongly toothed throughout its entire length; first and second subcostal nervules arising near together at some distance before the end of the cell, the second reaching the apex of the wing, the third of considerable length, and forming a wide angle with the nervure; the upper radial as a branch of the subcostal, the upper disco-cellular springing obliquely from the subcostal as if part of the second radial, and giving a peculiar arched form to the cell of the upper wings. Cell of the hind wings two-thirds the length of the wing.

This genus comprises a few large and fine Indian species, which seem to have no direct affinity with the rest of the old genus *Pieris*. They are well characterized by the extraordinary serrated costa, which in the larger species may be seen by the naked eye. The arrangement of the nervures of the upper wing is also very peculiar, and I am informed that Mr. Watson had already noticed the absence of the characteristic plumules from the wings of the males of this group, although they exist in all the other species of *Pieris*.

The species in several cases seem to mimic those of the genus *Thyca*. *P. thestylis* ♂, on the underside, most strikingly imitates *T. belladonna*, while the female resembles it on the upper side as well; *P. sita* is a perfect representation of *T. eucharis*; *P. cornelia* is equally like *T. singhapura*; and in all these cases the species of *Thyca* are very abundant, and are weak, slow-flying insects, while the mimicking species of *Prioneris* are rare, and in all cases the pairs which resemble each other inhabit the same district, and very often are known to come from the same locality.

1. *Prioneris thestylis*, Doubleday.

Pieris thestylis, Doubl. Zool. Misc. p. 76.

Hab.—North India, Darjeeling (Coll. Wall., B. M.).

Female.—Almost exactly like *P. seta*, but rather larger, blacker, and the colour beneath a rather greenish gamboge-yellow, without any tint of orange as in that species (Coll. Moore).

2. *Prioneris seta*, Moore.

Pieris seta, Moore, Proc. Zool. Soc. 1857, p. 102, t. 44, f. 3, ♀.

Male.—Above, white; upper wings with the costa, apex, and outer margin nearly to the outer angle, black, and all the veins beyond the cell black-margined; lower wings with a black fringe, and the orange markings of the under surface showing through. Beneath, the costal border is wider and with the apex is of a pale violet slate-colour, enclosing a white spot in the cell, and one or two others near the apex; the lower wings have patches of rich orange or chrome-yellow in the cell and between all the nervures, except two slaty patches, one below and the other above the base of the cell, the upper one enclosing a yellow spot.

Expanse of wings $2\frac{1}{2}$—$2\frac{3}{4}$ inches.

This appears to be the most common form, but a series of variations occur by which it is brought nearer and nearer to *P. thestylis*.

In the extreme form in this direction, the upper wings above are almost exactly as in *P. thestylis;* the lower wings differ in having only a very narrow dusky border, and in being of a different tint, owing to the orange colour of the under surface showing through. Beneath, the markings are almost identical in the two species, except that in *P. seta* the spots are all larger, especially the first from the abdominal margin, which extends down to and encloses the marginal spot, and in being all pale chrome or orange instead of pure gamboge-yellow, and the ground colour being of a purplish slate-colour, instead of nearly black.

Expanse $3\frac{1}{4}$ inches. (*P. thestylis* $3\frac{5}{8}$ inches).

Female.—The type is probably that represented by Mr. Moore. Mr. Watson, of Manchester, has, however, sent me for examination a curious specimen, which I believe to be a female approximating to the colouration of the male. Above, the upper wings differ from the male in having several dusky lines in the cell, leaving two or three distinct white spots near its upper border; the hind wings have a narrow black toothed border, and between the anal angle and the cell a large roundish ill-defined orange

patch. Beneath, the colouring is nearly as in the larger male specimens. The body is wanting, but the smooth costa shows it it to be a female.

Expanse 3 inches.

Hab.—N. India, Darjeeling, Moulmein (Coll. Moore, Wall., B. M.).

A very puzzling species, but in most specimens quite distinct from *P. thestylis*, and always smaller and of a different colour. If the extreme form only remained (and it seems now most numerous) it would not be thought very closely allied to the species from which we can now hardly separate it.

3. *Prioneris sita*, Felder.

Pieris sita, Feld. Voy. Novara, p. 161, tab. xxv. f. 12.

Wings broad, the uppers triangular, with the outer margin straight.

Male.—Above, white; the upper wings with the veins black and gradually thickened towards the outer margin, where they spread and unite in a border; lower wings with the veins black and thickened near the outer and hind margin, only dilated at the ends and connected by a narrow black edge; there is a very faint dusky wavy line parallel to the outer margin on both wings. Beneath, as above, but the veins black and thickened on both wings, the apex of the uppers and the whole disc of the lower wings bright yellow, and round the hind margin of the latter a row of six light cinnabar-red spots, separated from the disc by a narrow black border, the spots narrowly bordered and notched with white.

Expanse of wings $3\frac{1}{4}$ inches.

Hab.—Ceylon (B. M., Coll. Wall. & Moore).

This remarkable species so closely resembles in marking and colour the common *Thyca eucharis* of India, more especially on the under surface, that it might easily be mistaken for it. I had described it as *P. cucharoides* before receiving Dr. Felder's work, and fear that Mr. Moore's name of *seta* for an allied species will create some confusion.

4. *Prioneris elemanthe*, Doubleday.

Pieris elemanthe, Doubl. Ann. Nat. Hist. xvii. p. 23.

P. Helferi, Feld. Voy. Novara, p. 161, tab. xxv. f. 10, 11.

Hab.—North India (Coll. Saunders and Wall.).

Dr. Felder's figure seems to represent only a slight modification of the ordinary form of this species.

Female.—Above: upper wings dusky, with whitish bands in the cell and parallel to the inner margin, and two curved rows of linear whitish spots beyond, the inner ones larger, more ovate, and better marked; lower wings creamy-white, with a broad dusky outer border, which is prolonged along the nervures to the cell, and encloses a row of faint whitish rounded spots. Beneath, upper wings as above; lower wings as in the male, but the yellow tint paler and extending over the spots at the outer angle. (B. M.)

5. *Prioneris berenice*, Lucas.

Pieris berenice, Luc. Rev. & Mag. de Zool. 1852, p. 324.

Hab.—Silhet.

This seems very near *P. clemanthe;* I give the author's description:

"Near *autothisbe*. Wings white, the uppers with a black border formed of united spots; hind wings slightly yellow-tinged towards the base and abdominal margin, with a narrow black border extending on the nervures towards the outer angle in triangular patches. Beneath, the uppers as above, the nervures black-bordered, the hind wings *bright orange-brown*, with the *veins and border deep black, and a marginal row of white spots;* the base marked with a red spot."

The passages italicised show marked differences from *P. clemanthe*. I have not seen a specimen.

6. *Prioneris Vollenhovii*, n. sp. (Pl. IX. fig. 3, ♂.)

Form of wings as in *P. thestylis*.

Male.—Above, as in *P. clemanthe*, but the apex rather more dusky, and the posterior border wider, with the terminations of the veins more deeply bordered. Beneath, upper wings as above; lower wings with the nervures all black and thickened, the basal two-thirds and four spots at the outer angle rich yellow, the anal angle black, extending in a dusky border to the middle of the hind margin, at the base of the wing a hairy red patch as in *P. clemanthe*.

Expanse of wings $3\frac{3}{8}$ inches.

Hab.—Borneo, Sarawak (Coll. Wall. and W. W. Saunders).

7. *Prioneris cornelia*, Vollenhoven.

Pieris cornelia, Voll. Mon. Pier. p. 5, pl. 2, f. 2.

Hab.—Borneo (Leyden Museum).

This species in form and colouring resembles *Thyca singhapura*,

although it differs so remarkably in structure. I have not seen a specimen.

8. *Prioneris philonome*, Boisduval.

Pieris philonome, Bd. Sp. Gén. p. 453, ♂.

Hab.—Java (Coll. Payen).

A rare species, allied to *P. clemanthe* and *P. Vollenhovii* by the curious hairy red patch at the base of the lower wings beneath. I have not seen a specimen.

9. *Prioneris autothisbe*, Hübner.

Pieris autothisbe, Hübn. Samml. Ex. Schmett. ii. tab. cxxiii.; Bd. Sp. Gén. p. 452; Voll. Mon. Pier. p. 20, pl. 3, f. 5, ♀.

Hab.—Java (Wall.). (B. M. ♀.)

I took this species at 4,000 feet elevation on the mountains of West Java. Vollenhoven has made known the female, which by its black upper wings shows its affinity with *P. thestylis*.

ERONIA, Hübner.

The Eastern species of *Eronia* form a compact and homogeneous group of very closely allied forms, several of which are hardly more than slight geographical modifications. These insects frequent most generally the dry and open forests and plantations. They fly tolerably quickly, with an undulating movement, and often settle upon flowers. The clear blue tints with which the males are adorned render them striking objects in the forests of the Malay Islands.

1. *Eronia avatar*, Moore.

Eronia avatar, Moore, Cat. Lep. E. I. C. p. 61, pl. ii. a, f. 1, ♂.

Hab.—N. India, Darjeeling (Coll. Wall.).

Female.—Apex rather more rounded than in the male; dusky, with the spaces between the nervures whitish, as in *E. valeria* and *iobœa*, but leaving only the nervures and outer margin (enclosing the submarginal row of spots) dusky. Beneath, silvery, with the nervures obscurely dusky, the median nervure and its branches on the upper wing broadly blackish (Coll. Moore).

This fine species seems to be an extreme development of the *valeria* type.

2. *Eronia valeria*, Cramer.

Papilio valeria, Cr. 85 A. *Pieris valeria*, Bd. Sp. Gén. p. 444. *Eronia valeria*, Voll. Mon. Pier. p. 56.

Hab.—Malacca, Sumatra, Java, Borneo, Lombock, Flores (Coll. Wall.).

In this species the male is nearly constant, while the female, as in the whole genus, varies exceedingly, often more or less closely imitating species of *Danais*. The Bornean males have rather more elongate fore wings, with a slightly concave outer margin.

3. *Eronia hippia*, Fabricius.

Papilio hippia, Fab. Ent. Syst. III. i. p. 59; Don. Ins. India, pl. 25, f. 1. *Danais hippia*, Godt. Enc. Méth. ix. p. 193.

Pieris valeria, var. A, Bd. Sp. Gén. p. 445.

Eronia gæa, Feld. Voy. Novara, p. 190.

Hab.—India (Coll. Wall., B. M.)

This species has been generally confounded with *E. valeria*, but it is quite as distinct as most of the other species of the genus. It is undoubtedly the *hippia* of Fabricius and Godart. The female differs less from the male than in any other species of the genus.

4. *Eronia bœbera*, Eschscholtz.

Paphia bœbera, Esch. Voy. Kotzebue, vol. iii. (♀ fig.). *Eronia bœbera*, Feld. Wien. Ent. Monats. vi. p. 288, ♂.

Hab.—Philippine Is. (Luzon and Mindoro). (Coll. Wall., B. M.)

Closely allied to *E. hippia*.

5. *Eronia ceylanica*, Felder.

Eronia ceylanica, Feld. Voy. Novara, p. 191.

Hab.—Ceylon (Coll. Wall.).

Barely distinct from *E. hippia*.

6. *Eronia argolis*, Felder.

Eronia argolis, Feld. Wien. Ent. Monats. 1860, p. 52; Voll. Mon. Pier. p. 58, pl. 7, f. 2, ♀.

Hab.—Batchian, Gilolo (Coll. Wall.).

A richly-marked species. The female, as in several others of the genus, is often more or less tinged with yellow.

7. *Eronia tritæa*, Felder.

Eronia tritæa, Feld. Wien. Ent. Monats. vi. p. 288, t. 3, f. 2, ♂; Voll. Mon. Pier. p. 58, pl. 7, f. 3, ♀.

Hab.—Celebes (Macassar and Menado). (Coll. Wall.)

8. *Eronia phocæa*, Felder.

Eronia phocæa, Feld. Wien. Ent. Monats. v. p. 299, ♂; vi. p. 288, ♀.

Hab.—Mindanao (Coll. Wall.).

Near *E. tritæa* and *E. argolis*.

9. *Eronia iobæa*, Boisduval.

Pieris iobæa, Bd. Voy. Astrol. p. 57, pl. 2, f. 5, 6, ♂ (err. ♀); Sp. Gén. p. 445. *Eronia iobæa*, Voll. Mon. Pier. p. 57, pl. 7, f. 1, ♀.

Hab.—Ceram, Waigiou, New Guinea (Coll. Wall.).

The males do not vary perceptibly; the females vary in colour from bluish-white to pale yellow or ochre-yellow, and the markings from being as prominent as in the specimen figured by Vollenhoven to others in which the whole surface is brown-black, with a submarginal row of spots, and faint traces of the usual markings.

Callosune, Doubleday.

This African genus is restricted in the East to Southern Central and North Western India, and Ceylon. It is the tropical form of our northern *Anthocharis*.

1. *Callosune eucharis*, Fabricius.

Papilio eucharis, Fab. Syst. Ent. p. 472 (*nec* Drury). *Anthocharis eucharis*, Bd. Sp. Gén. p. 568.

Hab.—India, Ceylon (B. M.); Deccan (Coll. Moore).

2. *Callosune danae*, Fabricius.

Papilio danae, Fab. Syst. Ent. p. 476. *Anthocharis danae*, Bd. Sp. Gén. p. 570.

Hab.—Central India, Ceylon (B. M.).

3. *Callosune etrida*, Boisduval.

Anthocharis etrida, Bd. Sp. Gén. p. 576.

Hab.—Punjaub, N. India, Ceylon (B. M.).

In the Ceylon specimen the border of the hind wings is continuous, otherwise it agrees with the Indian form.

(*Anthocharis daphalis*, Moore, Proc. Zool. Soc. 1865, p. 491, pl. 31, f. 14, from Kunawur, N. W. India (10,000 feet alt.), belongs to the Palæarctic fauna.)

Colias, Boisduval.

This northern genus ranges over the higher parts of the Himalayan range as far as Assam, and one species has been recently described from the Nilgherries. Of the nine species here introduced not more than three or four can be properly said to belong to the Indian region. One is described from the Sandwich Islands.

1. *Colias Fieldii*, Ménétries.

Colias Fieldii, Ménétries, Cat. Imp. Acad. p. 79, t. 1, f. 5.

Hab.—N. W. Himalayas (Coll. Moore, B. M.).

A geographical form of *C. myrmidone*.

2. *Colias xenodice*, Felder.

Colias xenodice, Feld. Wien. Ent. Monats. iii. p. 394.

Hab.—Assam (Feld.) ; Nepal (Wall. *ex* Coll. Hardwicke).

Barely distinct from *C. edusa* or *C. myrmidone*.

3. *Colias eogene*, Felder.

Colias eogene, Feld. Voy. Novara, p. 196, pl. xxviii. f. 7.

Hab.—Himalaya (Coll. Felder).

Near *C. Boothii*, Curtis.

4. *Colias Ponteni*, Wallengren.

Colias Ponteni, Wallengren, Wien. Ent. Monats. iv. p. 33.

"Alis supra fulvido-flavis, maris iridatis, macula discoidali anticarum, limbo latissimo omnium, costisque extra cellulam, nigris ; apice anticarum flavo-maculato, omnibus maris infra fulvido-flavis, posticis apiceque anticarum fœminæ grisescente

flavis; anticis circulo discoidali ferrugineo, posticis macula ferruginea discoidali, costa flava intersecta margineque interiore late nigro-pustulato." (Wallengren.)

Hab.—Honolulu, Sandwich Islands.

5. *Colias hyale*, Linnæus.

Papilio hyale, Lin. S. N. i. p. 469. *Colias hyale*, Bd. Sp. Gén. p. 650.

Hab.—N. India, Nepal (Coll. Moore, B. M.).

6. *Colias neriene*, Fischer.

Colias neriene, Fischer, Ent. Russ. Lep. t. 11, f. 3, 4; Bd. Sp. Gén. p. 646.

Hab.—N. W. Himalayas (6,000—10,000 feet elevation, Capt. Lang).

7. *Colias nilagiriensis*, Felder.

Colias nilagiriensis, Feld. Wien. Ent. Monats. iii. p. 395.

Hab.—Malabar (Nilgherries). (Coll. Felder.)

A geographical modification of *C. neriene*.

8. *Colias shipkee*, Moore.

Colias shipkee, Moore, Proc. Zool. Soc. 1865, p. 492, pl. xxxi. f. 13.

Hab.—N. W. India (13,000 to 15,000 feet alt., Capt. Lang).

9. *Colias ladakensis*, Felder.

Colias ladakensis, Feld. Voy. Novara, p. 197, pl. xxvii. f. 8, 9, ♂.

Hab.—Himalaya, Ladak, Spiti (Dr. Stolickza). (Coll. Felder.)

Idmais, Boisduval.

This African and desert genus is represented only by five species in North Western, Western and Southern India.

1. *Idmais calais*, Cramer.

Papilio calais, Cr. 53 C, D, 351 A, D. *Idmais calais*, Bd. Sp. Gén. p. 587.

Pieris amata, Godt. Ent. Méth. ix. p. 131.

Hab.—Madras, S. India (B. M.).

2. *Idmais phisadia*, Godart.

Pieris phisadia, Godt. Enc. Méth. ix. p. 132. *Idmais phisadia*, Bd. Sp. Gén. p. 587.

Hab.—N. W. India (B. M.).

3. *Idmais dynamene*, Klug.

Pontia dynamene, Klug, Symb. Phys. Ins. t. 7, f. 5, 6. *Idmais dynamene*, Bd. Sp. Gén. p. 588.

Hab.—Punjaub (B. M.).

4. *Idmais fausta*, Olivier.

Papilio fausta, Oliv. Voy. en Syrie, t. 33, f. 4. *Idmais fausta*, Bd. Sp. Gén. p. 586.

Hab.—N. W. India (B. M.).

5. *Idmais fulvia*, n. sp. (Pl. IX. fig. 5, ♂, ♀.)

Near *I. fausta*.

Male.—Upper wings with the outer margin more convex, the apex blacker, leaving a row of small spots, the discoidal spot very large and nearly round; thorax and abdomen blackish. Beneath, paler in colour, the markings more distinct, and the discoidal spot much larger than in *I. fausta*.

Female.—Resembles the male, but the brick-red colour is replaced by white.

Expanse of wings, 2 inches.

Hab.—S. India (Moore); Scinde (B. M.).

Thestias, Boisduval.

This is an especially Indian genus. In the Archipelago one species is found in Sumatra, two in Java, and one in each of the small islands as far as Timor. It is not known from Borneo or from any other parts of the Archipelago. It seems to inhabit only mountainous and rather dry districts, and this has probably determined its peculiar distribution. Many of the species are very variable, especially in the female sex, and I have had much difficulty in grouping them satisfactorily.

1. *Thestias venilia*, Godart.

Pieris venilia, Godt. Enc. Méth. ix. p. 121. *Thestias venilia*, Bd. Sp. Gén. p. 594; Voll. Mon. Pier. p. 51.

Papilio ænippe, Cr. 157 C, D, ♀ ?.

Hab.—Java (Horsf.); Timor ? (Voll.).

This distinct species is probably confined to Java, where it is very scarce.

2. *Thestias Reinwardtii*, Vollenhoven.

Thestias Reinwardtii, Voll. Tijd. v. Ent. iii. p. 126; Mon. Pier. p. 50, pl. vi. f. 1, ♂.

Female.—Above, upper wings black, the internal border broadly white, the base dusky, a white oblique spot across the origin of the subcostal nervules, a smaller one below it, and three ovate spots near the outer margin; lower wings white, the base dusky, and a broad black outer border. In one specimen the markings of the upper wings are more developed, and of a yellow colour. Beneath, upper wings pale yellow, more or less irrorated with dusky, a large brown discoidal spot, beyond which is an irregular brown band, merging in a large patch at the outer angle; lower wings ochre-yellow, sparely irrorated on the disc, and densely on the outer margin, a small discoidal spot, and between it and the border a row of six or seven rufous-brown spots, dusky-margined, the third and fourth largest, and the whole nearly confluent.

Hab.—Baly, Lombock, Flores (Coll. Wall.).

A well-marked species, variable in the female, and restricted to the islands between Java and Timor.

3. *Thestias balice*, Boisduval.

Thestias balice, Bd. Sp. Gén. p. 593, ♂.

Hab.—Java (B. M.), ♂.

4. *Thestias Vollenhovii*, Wallace.

Thestias balice, Voll. Mon. Pier. p. 50, ♂, ♀ (*nec* Boisd.).

Hab.—Timor (Coll. Wall.), ♂, ♀.

Vollenhoven's description is correct. Boisduval's refers to the Java form, which is sufficiently distinct.

5. *Thestias venatrix*, n. sp.

Male.—Above, yellow; the hind wings with a very narrow dark edge, extending slightly on the nervures at the outer angle; fore wings with a large triangular orange-red patch in the middle, surrounded by a black border, narrow within and on the costa, wider at the apex and outer margin, the nervures and a discoidal spot black; the base of the wing bluish, and of the costa brown. Beneath: upper wings yellow, their margins and the whole of the lower wings pale yellow, thickly irrorated with reddish-ochre, discoidal spot on the lower wings of the same colour and small, on the upper wings larger and black.

Smaller than *T. balice*, to which it is allied.

Hab.—Moulmein (B. M.).

6. *Thestias marianne*, Cramer.

Papilio marianne, Cr. 217 C, D, E. *Thestias marianne*, Bd. Sp. Gén. p. 592, ♂, ♀.

Hab.—India (Coll. Wall., B. M.).

In a female from Madras, the transverse black band does not pass below the end of the cell, and some of this form in the British Museum are small, and have a narrow border; in another, from Bengal, the whole upper surface is tinged with ochre-yellow. One from the Punjaub is very large and finely coloured.

7. *Thestias pyrene*, Linnæus.

Papilio pyrene, Linn. Syst. Nat. ii. p. 762. *P. pyrene*, Cr. 125 A, B, C, ♂. *Thestias pirene*, Bd. Sp. Gén. p. 593, ♂.

Papilio ænippe, Drury, Exot. Ent. pl. 5, f. 2, ♂ (good). *P. ænippe*, Cr. 229 B, C.

Papilio sesia, Don. Ins. China, pl. 31, f. 2 (bad).

Male.—Drury's figure is the best, and serves well to identify the species. It differs from Cramer's *pyrene* above, by the wings being more acute, the orange patch less regular, and the black border to the hind wings generally wider. Beneath, it varies from clear yellow—with a small black discoidal spot on each wing, a blackish spot at the outer angle of the uppers, and two or three indistinct orange spots between the discoidal spot and the margin of the lower wings—to ochreish-yellow, thickly speckled with black on the costal region of the uppers and the whole surface of the lower wings, and the two or three orange submarginal spots more diffused. It differs strikingly from Cramer's *pyrene* in the entire absence of the row of brown spots with white ocelli.

Female.—Something like Cramer's *ænippe* (229 B, C), and perhaps the same (not 105 C, D). It varies greatly in size and colouring, as pointed out by Mr. Moore, from Capt. Lang's notes. It is always white and black, or nearly so, and offers the greatest difference of the sexes in this genus.

Expanse of wings (male) $2\frac{1}{4}$—$2\frac{3}{4}$ inches; (female) $2\frac{1}{4}$—$2\frac{7}{8}$ inches.

Hab.—N. India, Bengal, China (B. M., Coll. Wall.).

The largest specimens of both sexes are from Darjeeling. Those from the N. W. Himalayas are of moderate size, while those from the plains of Punjaub and Oude are smaller and less richly coloured. These last are hardly distinguishable from some specimens of *T. pirenassa*. The two in fact may well be con-

sidered as one abundant and variable species, which has become segregated into several forms, which may be divided into two pretty well-marked groups.

There has been great confusion about this species. Drury's is the best and most recognizable figure I have seen. The Linnæan description is so imperfect that the name ought perhaps not to be retained, but it has been so generally applied to some of the forms of this species that I think it better to keep to it.

8. *Thestias pirenassa*, n. sp. (Pl. IX. fig. 4, ♂.)
Thestias ænippe, Bd. Sp. Gén. p. 591, ♀ (as ♂) ?, (*nec* Cr., Dru.).

Male.—Costa much curved, hind wings subtriangular.

Above, like *T. pyrene*, but the transverse black band always touches the discoidal spot of the uppers. Beneath, yellow, faintly speckled with black; on the hind wings a row of six or seven spots, of which one on the inner margin, as well as the third and fourth, are larger and have pearly or violet-white ocelli.

Female.—Very like the male, differing only in the orange patch being smaller and less regular, and having two black spots on its lower part. Beneath, as in the male, but the spots are more distinct, and almost all have white ocelli.

Expanse of wings (♂ and ♀), 2 inches.

Hab.—Bombay, Madras (Coll. Wall., Moore).

Variety A.—Is rather clearer in colour, has the upper wings rather more acute, and a trace only of border on the hind wings in both sexes. Beneath, of a richer chrome-yellow tint. The female generally as in the type, but sometimes almost white as in the extreme form of *T. pyrene* ♀.

Expanse of wings, ♂ 2 inches; ♀ $1\frac{3}{4}$—2 inches.

Hab.—Sylhet, Darjeeling (Coll. Wall., Moore).

Variety B. Male.—Hind wings rather less triangular, transverse band completely enclosing the discoidal spot, under surface clear yellow, with minute discoidal spots, as in the extreme form of *T. pyrene* ♂. *Female.*—Pale yellow, with a broader dusky border, the spot on the upper wings smaller and more divided by the nervures, either the same yellow as the disc or more or less tinged with orange; beneath, ochreish or chrome-yellow, marked as in the female of *T. pyrene*.

Expanse of wings, ♂ 2 inches; ♀ 2—$2\frac{1}{4}$ inches.

Hab.—Bengal, N. India (Coll. Moore).

9. *Thestias Ludekingii*, Vollenhoven.

Thestias Ludekingii, Voll. Tijd. v. Ent. iii. p. 125 ; Mon. Pier. p. 49, pl. 5, f. 6, ♀.

Hab.—Sumatra (Leyden Museum).

A distinct species, allied to *T. pirenassa*.

IPHIAS, Boisduval.

This genus consists of the largest and most gaudily-coloured *Pieridæ*, and is especially characteristic of the Malayan Islands. For more than eighty years it had consisted of two species only, when I had the good fortune to discover two more in the Moluccas, and the group now comprises six sufficiently distinct species, all of which are found in the Malay Archipelago, one of them only ranging out of it over all tropical Asia. The Moluccas and Timor are the eastern limits of the group, no specimen having yet been found in New Guinea.

1. *Iphias glaucippe*, Linnæus.

Papilio glaucippe, Lin. S. N. ii. p. 762 ; Cr. 164 A, B, C. *Iphias glaucippe*, Bd. Sp. Gén. p. 596.

Hab.—(Type).—India, Sumatra, Celebes (Coll. Wall., B. M.).
(Var.).—Java, Flores, Timor, Philippine Is. (Coll. Wall., B. M.).

This species has a wide range and varies slightly in each locality in form, size, and colouration. These variations may be best grouped under two forms,—the type, which has the orange patch bordered with black on the inner side,—the variety which has little or no black separating the orange from the white of the wings. The Celebes specimens are very large and have very acutely-pointed wings. The Celebes form has most black, the Timor form least ; and if the species became extinct over the remainder of its range, these two would undoubtedly be considered distinct, since they differ constantly both in form and markings.

2. *Iphias borneensis*, n. sp.

Iphias glaucippe, var., Wall. Journ. Ent. vol. 2, p. 3.

Male.—Like *I. glaucippe*, but the orange apical patch much reduced, leaving a wide border all round it, which at the apex encroaches on the black spots ; lower wings sometimes with a submarginal row of small spots.

Female.—Like *I. glaucippe*, but the apical patch small and

white, the disc of the hind wings only tinged with sulphur-yellow, and the margin more broadly black.

Hab.—Borneo (Coll. Wall.), (♀ B. M.).

This interesting species bears the same relation to *glaucippe* that *leucogynia* does to *leucippe;* the female being coloured white and black only.

3. *Iphias Vossii*, Maitland.

Iphias Vossii, Mait. Tijd. voor Ent. ii. p. 25; Voll. Mon. Pier. p. 55, pl. vi. f. 4.

Hab.—Island of Nias, near Sumatra (Leyden Mus.).

4. *Iphias sulphurca*, Wallace.

Iphias sulphurea, Wall. Journ. of Ent. vol. 2, p. 5.
I. Felderi, Voll. Mon. Pier. p. 53, pl. 6, f. 2, 3, ♂, ♀.

Hab.—Batchian, Gilolo, Morty Island (Coll. Wall.).

5. *Iphias leucogynia*, Wallace.

Iphias leucogynia, Wall. Journ. of Ent. vol. 2, p. 4, pl. 1, f. 1 ♂, f. 2 ♀.

Hab.—Bouru (Coll. Wall.).

6. *Iphias leucippe*, Cramer.

Papilio leucippe, Cr. 36 A, B, C. *Iphias leucippe*, B.l. Sp. Gén. p. 596.

Hab.—Amboina, Ceram (Coll. Wall.).

This magnificent insect is not uncommon in Amboina as well as in Ceram, although the Leyden Museum possesses no specimens from the former locality.

Dercas, Boisduval.

A small group of insects separated from *Gonepteryx* by Dr. Boisduval, and now generally adopted. Their wings are larger in proportion to their bodies, their antennæ more slender, the wing cells much shorter, and the radial of the lower wing is very differently situated. *Dercas gobrias* flies slowly in forest clearings near the ground, often settling in damp places. The genus seems confined to India, Borneo, and Sumatra.

1. *Dercas gobrias*, Hewitson.

Gonepteryx gobrias, Hew. Trans. Ent. Soc. 3rd ser. vol. ii. p. 246, pl. xvi. f. 1, ♂; Butler, Proc. Zool. Soc. 1865, p. 432, pl. xxv. fig. 4, ♂, ♀.

Female.—Larger than the male, pale yellow, the discoidal spot and transverse streak almost obsolete.

Hab.—Sumatra, Borneo (Coll. Wall., B. M.).

2. *Dercas Verhuellii*, Van der Hoeven.

Colias Verhuellii, Van d. Hoeven, Tijd. Nat. Gesch. 1838, t. 8, f. 3, 4, ♂.

Rhodocera lycorias, Doubl. Zool. Misc. 1842, p. 77 (wood cut) ♀.

Hab.—N. India, Silhet (Coll. Wall., B. M.).

The female has the apex of the wings more falcate and acute than the male, and the markings and outline of the wings vary considerably.

In the "Genera of Diurnal Lepidoptera," Mr. Doubleday puts his *R. lycorias* ♀ as a synonym of *D. Verhuellii*, but retains *lycorias* ♂ as a distinct species from Silhet. As no specimen answering to his description exists in the British Museum, or in any private collection with which I am acquainted, I am inclined to think that the specimen was probably compounded of the fore wings and body of *D. Verhuellii*, with the hind wings of a *Callidryas*.

3. *Dercas Wallichii*, Doubleday.

Gonepteryx Wallichii, Doubl. Proc. Ent. Soc. 1848, p. xlvii.

G. urania, Butler, Proc. Zool. Soc. 1865, p. 458, pl. xxvi. f. 5.

Hab.—N. India (B. M.).

This species agrees better with *Dercas* than with *Gonepteryx*, by the short discoidal cells, though it is somewhat intermediate between the two genera.

Gonepteryx, Leach.

Of this genus two species of the European type enter the Indian region on its north-western boundary, and these are probably confined to the higher ranges of the Himalayas. A third species has been described by Dr. Felder, from Northern China,

1. *Gonepteryx nipalensis*, Doubleday.

Gonepteryx nipalensis, Doubl. Gen. Diurn. Lep. p. 71.

G. rhamni, G. R. Gray, Lep. Ins. Nepaul. t. 5, f. 1 (*nec* Linn.).

Hab.—N. India, Darjeeling (B. M.).

2. *Gonepteryx zaneka*, Moore.

Gonepteryx zaneka, Moore, Proc. Zool. Soc. 1865, p. 493, pl. xxxi. f. 18.

Hab.—N. W. Himalayas (B. M.).

"In thick forests about Narkunda, 50 miles from Simla." (Capt. Lang).

3. *Gonepteryx acuminata*, Felder.

Gonepteryx acuminata, Feld. Wien. Ent. Monats. vi. p. 23.

Hab.—Ning-po, China (Coll. Felder).

A variety of *G. aspasia*, Men., from the Amur.

Callidryas, Boisduval.

This wide-spread tropical genus is fairly represented in the Malay Islands. Most of the species are very abundant in individuals, frequenting the open country, gardens and river banks, and in the dry season settling by hundreds together on wet and muddy places, or on the extreme edge of the sinking waters of the streams. Some of the named species are distinguished by such slight characters that it is possible they may in some cases be different forms (perhaps different broods) of the same species.

1. *Callidryas thisorella*, Boisduval.

Callidryas thisorella, Bd. Sp. Gén. p. 609.

Hab.—India, Australia (Queensland). (Coll. Wall., B. M.)

A female from Australia only differs from the male above in the larger discoidal spot. Beneath, it is of a pinkish pearly tint, with the irrorations obsolete, a large dusky discoidal spot and another small one on each wing, and a faint submarginal line formed of dusky patches on both wings.

2. *Callidryas philippina*, Cramer.

Papilio philippina, Cr. 361 C, D. *Callidryas philippina*, Bd. Sp. Gén. p. 619.

Hab.—Bengal, Central India. (Coll. Wall., B. M.)

3. *Callidryas pyranthe*, Linnæus.

Papilio pyranthe, Lin. S. N. ii. p. 763. *Callidryas pyranthe*, Bd. Sp. Gén. p. 611.

Papilio alcyone, Cr. 58 A, B, C.

Hab.—N. India, Malacca, Sumatra, Java, Flores, China, Formosa, Philippine Islands (Coll. Wall.).

The specimens from Formosa are very large, but agree in colour and marking with those from other localities; another specimen from the same place is as remarkably small.

4. *Callidryas minna*, Boisduval.

Callidryas minna, Bd. Sp. Gén. p. 612.

Hab.—India, Flores (Wall.); Australia (Voy. Novara).

I took a specimen of what seems to be this species in Flores. It has a less acute apex and a more rounded outer margin of the fore wings than in *C. pyranthe*, and the border is more regularly curved within, and extends farther along the costa.

5. *Callidryas alcmeone*, Cramer.

Papilio alcmeone, Cr. 141 E. *Callidryas alcmeone*, Bd. Sp. Gén. p. 627.

? *Papilio catilla*, Cr. 229 D, E.

Hab.—India, Malacca, Sumatra, Java, Borneo, Philippine Islands, Celebes, Moluccas, Timor (Coll. Wall.).

6. *Callidryas hilaria*, Cramer.

Papilio hilaria, Cr. 339 A, B. *Callidryas hilaria*, Bd. Sp. Gén. p. 626.

Papilio jugurtha, Cr. 187 E, F.

Hab.—India, Malacca, Borneo, Java, Lombock, Timor, Batchian, Australia (Coll. Wall.).

7. *Callidryas crocale*, Cramer.

Papilio crocale, Cr. 55 C, D, ♀. *Callidryas crocale*, Bd. Sp. Gén. p. 625.

Callidryas endeer, Bd. Voy. Astrol. p. 63, pl. 2, f. 3, 4, ♀.

Male.—Above, sulphur-yellow, the outer margins paler, and the base of a different texture as in *C. alcmeone* and *C. hilaria*, but with no marked difference of colour. Beneath, exactly like *C. alcmeone*, but differs in tint as above.

Female.—Varies much, from a yellow form very like *C. hilaria* ♀,

to the dark insect figured by Boisduval. Beneath, the colour is in some specimens nearly uniform yellow or buff, in others there is a distinct submarginal zigzag dusky band.

Hab.—Celebes, Philippine Islands, Batchian, Ceram, Timor, Australia, Queensland (Coll. Wall.).

This has been confounded by Vollenhoven with *C. alcmeone*, from which, however, it is quite distinct. The Timor specimens are very small in both sexes.

8. *Callidryas phlegeus*, n. sp.

Male.—Above, exactly like *C. crocale* ♂. Beneath, like *C. hilaria* ♂. Thus differing from *C. crocale* just as *C. hilaria* differs from *C. alcmeone*.

Hab.—Timor (Coll. Wall.).

If *C. hilaria* and *C. alcmeone* are maintained as distinct species, we cannot refuse the same rank to this form.

9. *Callidryas gorgophone*, Boisduval.

Callidryas gorgophone, Bd. Sp. Gén. p. 632.

Hab.—Australia, Queensland (Coll. Wall.).

10. *Callidryas scylla*, Linnæus.

Papilio scylla, Lin. S. N. ii. p. 763; Cr. 12 C, D. *Callidryas scylla*, Bd. Sp. Gén. p. 631.

Hab.—Java, Sumatra, Lombock, Timor, Celebes, Ternate, Batchian (Coll. Wall.)

ADDENDA ET CORRIGENDA.

Page 307, lines 2 and 13, for 35 read 37; and in the Table read as follows:—

Groups of Islands.	Species of *Pieridæ*.	Peculiar Species.	Percentage of peculiar Species.
Indo-Malayan	58	38	65
Philippines	34	19	56
Papuan	31	20	65

Page 315. In the List of New Species, *dele Thestias dissimilis*.

Page 316, line 23, *dele* "*Pieris athama*, Lucas = *Tachyris celestina*, Boisd. ♀."

Page 317. *Pontia Crookera*. Not in British Collections.

„ „ *Pontia medusa*. I can find no record of authentic specimens.

Page 327. *Terias celebensis*. Expanse of wings $1\frac{1}{8}-1\frac{7}{8}$ inch (*not* $1\frac{7}{8}$ inch to $2\frac{1}{8}$ inches).—A. R. W., Nov. 1867.

	PALÆARCTIC REGION.	INDIAN REGION.							AUSTRALIAN REGION.																							
		Asia.		Indo-Malay Islands.				Philippines.	Celebes.		Moluccan Group.							Papuan Islands.				Timor Group.				Australia and Pacific Is.							
		Indian Asia.	Chinese Asia.	Malacca and Singapore.	Sumatra.	Java.	Borneo.		Celebes.	Sulla Island.	Batchian.	Kaioa Isl.	Gilolo and Ternate.	Morty Isl.	Bouru.	Ceram and Amboina.	Goram and Matabello.	Ké Isl.	Aru Islands.	Mysol.	Waigiou.	N. Guinea and Salwaty.	Lombock.	Flores.	Timor.							
	PONTIA.																															
1.	nina	..	1	..	1	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..							
2.	Crookera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1							
3.	niobe	..	..	1																												
4.	dione	..	..	..	..	..	..	..	..	1																						
5.	medusa	..	1																													
6.	lignea	..	..	..	..	..	..	..	..	1																						
	ELODINA.																															
1.	egnatia	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	1							
2.	hypatia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1										
3.	therasia ...	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..										
4.	bouruensis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..										
5.	angulipennis .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1						
6.	padusa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1						
7.	parthia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1						
8.	signata .... (N. Cal.)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1						
	TERIAS.																															
1.	barina	..	1	..	1	1	1	1	1	..	1	..	..	..	..	1	..	..	1	..	..	..	..	..	..							
2.	angulata	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1						
3.	læta	..	1																													

4. venata	..	1																									
5. santana	..	1	..	..	..	..	..	1																			
6. vagans	..	1	1																								
7. smilax	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
8. herla	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
9. australis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
10. ingana	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
11. sinta	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
12. senna	..	..	..	1																							
13. drona	..	..	..	..	..	1	..	..	1	..	..	..	1	..	1	1	..	..	..	..	..	..	..	1	1		
14. lerna	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	
15. rubella	..	1																									
16. fimbriata	..	1																									
17. silhetana	..	1																									
18. blanda	..	1	1	..	..	1	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	1					
19. phanospila	..	..	..	..	..	1	..	..	..	..	..	..	1														
20. diversa	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	1	..	1	..	..	1					
21. hecabe	..	1	1	1	1	1	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	1	
22. sinensis	..	..	1																								
23. nicobariensis	..	1																									
24. anemone	..	..	1																								
25. sari	..	..	..	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
26. eumide	..	..	..	..	..	..	..	..	1	1	1																
27. tilaha	..	..	..	..	..	1	1																				
28. Lorquinii	..	..	..	..	..	..	..	..	1																		
29. alitha	..	..	..	..	..	..	..	1																			
30. zita	..	..	..	..	..	..	..	..	1																		
31. tominia	..	..	..	..	..	..	..	..	1	1																	
32. celebensis	..	..	..	..	..	..	..	..	1	1																	
33. candida	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	?		
34. puella	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	1						
35. virgo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1								
36. impura	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1		
PIERIS.																											
1. mesentina	..	1																									
2. teutonia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1

Region	Group	Locality	3. niseia	4. coronea	5. peristhene	6. affinis	7. Boisduvaliana	8. rachel	9. periclione	10. pitys	11. mentes	12. nabis	13. narses	14. periclea	15. judith	16. aspasia	17. emma	18. olga	19. hester	20. jael	21. lea	22. amalia	23. naomi
AUSTRALIAN REGION.		Australia and Pacific Is.	1									1	1	1									
	Timor Group.	Timor.	:	1						1		:	:	:									
		Flores.	:	1						:	1	:	:	:									1
		Lombock.	:	1						:	1	:	:	:									1
	Papuan Islands.	N. Guinea and Salwatty.	:	:	1					:	:	:	:	:					1				:
		Waigiou.	:	:	:			1		:	:	:	:	:					1				:
		Mysol.	:	:	:			:		:	:	:	:	:					1				:
		Aru Islands.	:	:	:			:	1	:	:	:	:	:					:				:
	Moluccan Group.	Ké Isl.	:	:	:			:	:	:	:	:	:	:					:				:
		Goram and Matabello.	:	:	:			:	:	:	:	:	:	:					:				:
		Ceram and Amboina.	:	:	:			1	:	:	:	:	:	:		1			:				:
		Bouru.	:	:	:			1	:	:	:	:	:	:		:			:	1			:
		Morty Isl.	:	:	:			:	:	:	:	:	:	:		:			:	:			:
		Gilolo and Ternate.	:	:	:			1	:	:	:	:	:	:		:	1		:	:			:
		Kaioa Isl.	:	:	:			:	:	:	:	:	:	:		:	:		:	:			:
		Batchian.	:	:	:			:	:	:	:	:	:	:		:	1		:	:			:
	Celebes.	Sulla Isl.	:	:	:			:	:	:	:	:	:	:		:	:		:	:			:
		Celebes.	:	1	:	1		:	:	:	:	:	:	:		:	:		:	:			:
INDIAN REGION.		Philippines.	:	:	:	:	1	:	:	:	:	:	:	:		:	:	1	:	:			:
	Indo-Malay Islands.	Borneo.	:	:	:	:	:	:	:	:	:	:	:	:		:	:	:	:	:	1		:
		Java.	:	1	:	:	:	:	:	:	:	:	:	:	1	:	:	:	:	:	:		:
		Sumatra.	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	1	:
		Malacca and Singapore.	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	1	:
	Asia.	Chinese Asia.	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
		Indian Asia.	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
PALÆARCTIC REGION.			:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:

Pieris—*cont.*

24.	temena	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	
25.	tamar (Baly I.)	..	..	..	..	..	1																				
26.	læta	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
27.	timnatha	..	..	..	..	..	..	..	..	1	1																
28.	eperia	..	..	..	..	..	..	..	..	1																	
29.	pactolicus	..	..	..	..	..	..	1																			
30.	coronis	..	1	1																							
31.	evagete	..	1																								
32.	corva	..	..	..	..	..	1																				
33.	zeuxippe	..	1																								
34.	hira	..	1																								
35.	copia	..	1																								
36.	amba	..	1																								
37.	nama	..	1																								
38.	remba	..	1																								
39.	nadina	..	1																								
40.	nesba	..	..	1																							
41.	cynis	..	..	..	1	1																					
42.	nipalensis	..	1																								
43.	ajaka	..	1																								
44.	gliciria	..	1	1	..	..	..	..	1																		
45.	pigea	..	..	1																							
46.	daplidice	1	1																								
47.	kalora	..	1																								
48.	agathon	..	1																								
49.	nabellica	..	1																								
50.	soracta	..	1																								
	(hippia)	1																									
	THYCA.																										
1.	pasithoe	..	1																								
2.	henningia	..	..	..	..	..	..	..	1																		
3.	pandemia	..	..	..	..	..	..	1																			
4.	egialea	..	..	..	..	1	1																				

Region	Group	Locality	5. crithoe	6. thisbe	7. pyramus	8. parthenope	9. ninus	10. belladonna	11. sanaca	12. aganippe	13. belisama	14. sthenobæa	15. glauce	16. Descombesi	17. zebuda	18. aruna	19. harpalyce	20. nigrina	21. hierte	22. ucharis	23. hyparete	24. luzoniensis
AUSTRALIAN REGION.		Australia and Pacific Is.								1							1	1				
	Timor Group.	Timor.								..							..	..				
		Flores.								..							..	..				
		Lombock.								..							..	..				
	Papuan Islands.	N. Guinea and Salwatty.								..						1	..	..				
		Waigiou.								..						1	..	..				
		Mysol.								..						..	..	..				
		Aru Islands.								..						..	..	..				
	Moluccan Group.	Ké Isl.								..						..	..	..				
		Goram and Matabello.								..						..	..	..				
		Ceram and Amboina.								..		?				..	..	..				
		Bouru.								..		..				..	..	..				
		Morty Isl.								..		..				..	..	..				
		Gilolo and Ternate.								..		..				..	..	..				
		Kaioa Isl.								..		..				..	..	..				
		Batchian.								..		..				1	..	..				
	Celebes.	Sulla Isl.								..		..				..	..	..				
		Celebes.								..		..			1	..	..	..				
INDIAN REGION.		Philippines.								..		..			..	..	..	..				1
	Indo-Malay Islands.	Borneo.				1				..		..	1		..	..	..	..			1	..
		Java.	1			..				..	1	..	..		..	..	..	..			1	..
		Sumatra.	..			..				..	1	..	..		..	..	..	..			1	..
		Malacca and Singapore.	..			1	1			..	..	..	..		..	..	..	..			1	..
	Asia.	Chinese Asia.	..	1		..	..			..	..	..	..	1	..	..	..	..	1		..	..
		Indian Asia.	..	..	1	..	..	1	1	..	..	..	..	1	..	..	..	..	1	1	..	..
PALÆARCTIC REGION.			..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

THYCA—*cont.* Column headings as printed, with braces grouping: 5. crithoe; 6.–7. {thisbe, pyramus}; 8.–9. {parthenope, ninus}; 10.–11. {belladonna, sanaca}; 12. aganippe; 13. belisama; 14. sthenobæa; 15.–17. {glauce, Descombesi, zebuda}; 18. aruna; 19. harpalyce; 20. nigrina; 21. hierte; 22. ucharis; 23.–24. {hyparete, luzoniensis}.

25.	Rosenbergii	..	..	..	..	..	..	..	..	1																				
26.	hæmorrhœa	..	..	..	..	..	1																							
27.	agostina	..	1																											
28.	blanca	..	..	..	..	..	..	..	1																					
29.	singhapura ..	..	..	..	1																									
30.	argenthona ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
31.	peribæa	..	..	..	..	..	1																							
32.	themis	..	..	..	..	..	..	..	1																					
33.	gabia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1					
34.	dice	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1					
35.	ennia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1						
36.	bagoe	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	1	..	..							
37.	mysis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
38.	cruentata..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1					
39.	pœcilea	..	..	..	..	..	..	..	..	..	..	1	..	1	1															
40.	candida ..	..	..	..	..	..	..	..	..	..	..	1																		
41.	herodias ..	..	..	..	..	..	..	..	..	..	..	..	..	1																
42.	timorensis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
43.	philyra....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1													
44.	philotis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1														
45.	duris	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1													
46.	isse	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1													
47.	echo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1														
48.	chrysomelæna	..	..	..	..	..	..	..	..	..	..	..	1																	
49.	echidna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1													
50.	hippodamia..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1										
51.	dorimene	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1													
52.	dorylæa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1										
53.	momea	..	..	..	..	..	1																							
54.	nysa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
55.	lanassa.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
56.	orphne.....	..	..	..	1																									
57.	georgina	..	..	..	..	..	..	..	1																					
	TACHYRIS.																													
1.	Hombronii ..	..	..	..	..	..	..	..	..	..	1																			

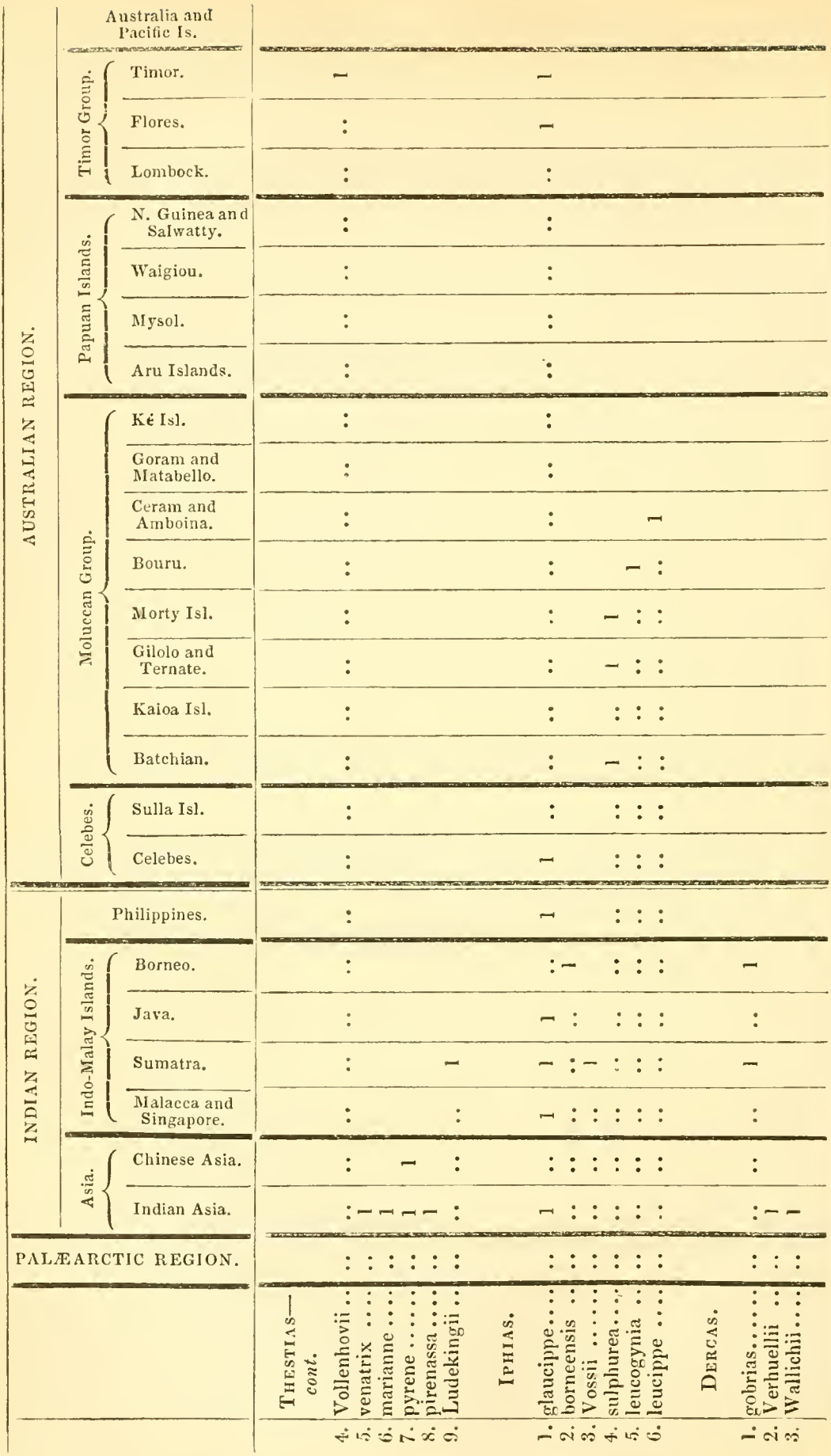
Tachyris—continued.

Region	Group	Locality	2. cardena	3. nerissa	4. lynceola	5. lyncida	6. lycaste	7. formosana	8. andrea	9. hippo	10. enarete	11. scyllaria	12. ada	13. clavis	14. abnormis	15. panda	16. nathalia	17. paulina	18. Rouxii	19. psyche	20. galathea (Nic. Is.)	21. ega	22. urania
AUSTRALIAN REGION.		Australia and Pacific Is.										1								1		1	
	Timor Group.	Timor.			1							:						1		:		:	
		Flores.			:	1						:						:		:		:	
		Lombock.			:	1						:						:		:		:	
	Papuan Islands.	N. Guinea and Salwatty.			:	:						:	1		1			:		:		:	
		Waigiou.			:	:						:	:		:			:		:		:	
		Mysol.			:	:						:	1		:			:		:		:	
		Aru Islands.			:	:						:	1		:			1		:		:	
	Moluccan Group.	Ké Isl.			:	:						:	:	1	:			:		:		:	
		Goram and Matabello.			:	:						:	:	:	:			:		:		:	
		Ceram and Amboina.			:	:						:	1	:	:			1		:		:	
		Bouru.			:	:						:	1	:	:			1		:		:	
		Morty Isl.			:	:						:	:	:	:			1		:		:	
		Gilolo and Ternate.			:	:						:	:	:	:			1		:		:	
		Kaioa Isl.			:	:						:	:	:	:			:		:		:	
		Batchian.			:	:						:	:	:	:			1		:		:	
	Celebes.	Sulla Isl.			:	:						:	:	:	:			:		:		:	
		Celebes.			:	:	1					:	:	:	:		1	1		:		:	1
INDIAN REGION.		Philippines.		1	:	:	.		1	1		:	:	:	:		1	1		:		:	:
	Indo-Malay Islands.	Borneo.	1	:	:	:	:		:	:	1	:	:	:	:		1	:		:		:	:
		Java.	:	:	:	1	:		:	:	:	:	:	:	:	1	:	1		:		:	:
		Sumatra.	1	:	:	:	:		:	1	:	:	:	:	:	:	1	:		:		:	:
		Malacca and Singapore.	1	:	:	:	:		:	1	:	:	:	:	:	:	1	1		:		:	:
	Asia.	Chinese Asia.	:	:	:	:	:	1	:	:	:	:	:	:	:	:	:	:		:		:	:
		Indian Asia.	:	1	:	:	:	:	:	1	:	:	:	:	:	:	:	1	1	:	1	:	:
PALÆARCTIC REGION.			:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:

23.	Jacquinotii.	..	..	..	..	..	..	..	1	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	1
24.	alope	..	1	..	..	1	1	1																		
25.	amarella .... (New Cal.)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
26.	acrisa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1			
27.	leptis	..	1	..	..	..	1	1																		
28.	celestina	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1			
29.	clementina ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1									
30.	athama .... (New Cal.)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
31.	cynisca.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1										
32.	eumelis .... (N. Ire.)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
33.	panthea	..	..	..	..	..	..	..	1																	
34.	cycinna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1						
35.	corinna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1				
36.	liberia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1									
37.	eliada	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1									
38.	placidia .. .	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	1	..	..	..	..	1				
39.	fatima	..	..	..	..	..	..	..	..	1																
40.	nero	..	1	..	1	1	1	1																		
41.	galba	..	1																							
42.	domitia ..	..	..	..	..	..	..	..	1																	
43.	zarinda.....	..	..	..	..	..	..	..	..	1	1															
44.	bouruensis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1										
45.	zamboanga ..	..	..	..	..	..	..	..	1																	
46.	asterope	..	..	..	..	..	..	..	1																	
47.	ithome	..	..	..	..	..	..	..	..	1																
48.	nephele	..	..	..	..	..	..	..	1																	
49.	pandione	..	..	..	..	..	1																			
50.	Lucasii.....	..	..	..	..	..	1																			
51.	indra	..	1																							
52.	phœbe	..	..	..	..	..	..	..	1																	
53.	zamora....	..	..	..	..	..	..	..	1																	
54.	lalage	..	1																							

Region	Group	Locality	Tachyris—*continued.* 55. polisma	56. illana	Prioneris. 1. thestylis	2. seta	3. sita (Ceylon)	4. clemanthe	5. berenice	6. Vollenhovii	7. cornelia	8. philonome	9. autothisbe	Eronia. 1. avatar	2. valeria	3. hippia	4. bæbera	5. ceylanica	6 argolis
Australian Region.		Australia and Pacific Is.																	
	Timor Group.	Timor.																	
		Flores.													1				
		Lombock.													1				
	Papuan Islands.	N. Guinea and Salwatty.													:				
		Waigiou.													:				
		Mysol.													:				
		Aru Islands.													:				
	Moluccan Group.	Ké Isl.													:				
		Goram and Matabello.													:				
		Ceram and Amboina.													:				
		Bouru.													:				
		Morty Isl.													:				
		Gilolo and Ternate.													:				1
		Kaioa Isl.													:				:
		Batchian.													:				1
	Celebes.	Sulla Isl.													:				:
		Celebes.	1												:				:
Indian Region.		Philippines.	:	1											:		1		:
	Indo-Malay Islands.	Borneo.	:	:						1	1				1		:		:
		Java.	:	:						:	:	1	1		1		:		:
		Sumatra.	:	:						:	:	:	:		1		:		:
		Malacca and Singapore.	:	:						:	:	:	:		1		:		:
	Asia.	Chinese Asia.	:	:						:	:	:	:		:		:		:
		Indian Asia.	:	:	1	1	1	1	1	:	:	:	:	1	:	1	:	1	:
Palæarctic Region.			:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:

7.	tritæa	..	..	..	..	..	..	..	..	1																					
8.	phocæa	..	..	..	..	..	..	..	1																						
9.	iobæa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1							
	CALLOSUNE.																														
1.	eucharis	..	1																												
2.	danae	..	1																												
3.	etrida	..	1																												
	ANTHO-CHARIS.																														
	(daphalis) ..	1																													
	COLIAS.																														
1.	Fieldii	1	1																												
2.	xenodice	..	1																												
3.	eogene	..	1																												
4.	Ponteni	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1			
5.	hyale	1	1																												
6.	neriene.....	1	1																												
7.	nilagiriensis..	..	1																												
8.	shipkee	1	1																												
9.	ladakensis ..	1	1																												
	IDMAIS.																														
1.	calais	..	1																												
2.	phisadia	..	1																												
3.	dynamene ..	..	1																												
4.	fausta	..	1																												
5.	fulvia	..	1																												
	THESTIAS.																														
1.	venilia	..	..	..	..	..	1																								
2.	Reinwardtii..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1					
3.	balice	..	..	..	..	..	1																								


AUSTRALIAN REGION.
INDIAN REGION.
PALÆARCTIC REGION.
Australia and Pacific Is.
Timor Group.
Timor.
Flores.
Lombock.
Papuan Islands.
N. Guinea and Salwatty.
Waigiou.
Mysol.
Aru Islands.
Moluccan Group.
Ké Isl.
Goram and Matabello.
Ceram and Amboina.
Bouru.
Morty Isl.
Gilolo and Ternate.
Kaioa Isl.
Batchian.
Celebes.
Sulla Isl.
Celebes.
Philippines.
Indo-Malay Islands.
Borneo.
Java.
Sumatra.
Malacca and Singapore.
Asia.
Chinese Asia.
Indian Asia.
Thestias—cont.
4. Vollenhovii
5. venatrix
6. marianne
7. pyrene
8. pirenassa
9. Ludekingii
Iphias.
1. glaucippe
2. borneensis
3. Vossii
4. sulphurea
5. leucogynia
6. leucippe
Dercas.
1. gobrias
2. Verhuellii
3. Wallichii

GONEPTERYX.																										
1. nipalensis ..	..	1																								
2. zaneka	..	1																								
3. acuminata ..	..	..	1																							
CALLIDRYAS.																										
1. thisorella	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
2. philippina ..	..	1																								
3. pyranthe	..	1	1	1	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1		
4. minna	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
5. alcmeone	..	1	..	1	1	1	1	1	1	..	1	1	1	1	1	1	1	1	..	..	..	..	..	..	1	
6. hilaria	..	1	..	1	..	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	
7. crocale	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1
8. phlegeus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
9. gorgophone..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
10. scylla	..	..	..	..	1	1	..	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	1	

No. of Species.	Genus.	PALÆARCTIC REGION.	INDIAN REGION. Asia. Indian Asia.	Asia. Chinese Asia.	Indo-Malay Islands. Malacca and Singapore.	Sumatra.	Java.	Borneo.	Philippines.	AUSTRALIAN REGION. Celebes. Celebes.	Sulla Isl.	Moluccan Group. Batchian.	Kaioa Isl.	Gilolo and Ternate.	Morty Isl.	Bouru.	Ceram and Amboina.	Goram and Matabello.	Ké Isl	Papuan Islands. Aru Islands.	Mysol.	Waigiou.	N. Guinea and Salwatty.	Timor Group. Lombock.	Flores.	Timor.	Australia and Pacific Is.
6.	Pontia	..	2	1	1	1	1	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1
8.	Elodina....	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	1	..	..	1	..	..	1	..	..	1	4
36.	Terias	..	12	5	4	3	7	4	5	7	3	4	..	3	..	4	6	2	1	3	..	1	2	..	2	3	9
50.	Pieris	1	18	4	2	2	4	2	3	4	1	1	..	2	..	2	2	..	..	1	1	2	2	4	4	3	5
57.	Thyca.....	..	8	3	5	3	7	4	5	2	..	3	1	2	1	2	5	..	..	3	1	4	4	..	..	1	7
56.	Tachyris ..	..	11	1	5	5	8	6	14	9	1	4	..	2	2	5	7	..	1	4	2	3	4	1	1	2	7
9.	Prioneris ..	..	5	..	..	..	2	2																			
9.	Eronia	..	3	..	1	1	1	1	2	1	..	1	..	1	..	..	1	..	..	..	..	1	1				
3.	Callosune..	..	3																								
9.	Colias	5	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
5.	Idmais	..	5																								
9.	Thestias ..	..	4	1	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	
6.	Iphias	..	1	..	1	2	1	1	1	1	..	1	..	1	1	1	1	..	..	..	..	..	..	..	1	1	
3.	Dercas	..	2	..	..	1	..	1																			
3.	Gonepteryx	..	2	1																							
10.	Callidryas	..	6	1	3	3	4	2	3	3	..	4	1	2	1	1	2	1	1	..	..	..	..	2	2	5	4
279		6	90	17	22	22	37	24	34	30	5	18	2	14	5	16	25	3	3	12	4	11	14	9	12	18	38

	PALÆ-ARCTIC REGION.	INDIAN REGION.			AUSTRALIAN REGION.				
		Asia.	Malay Is.	Philippine Is.	Celebes.	Moluccas.	Papua.	Timor group.	Australia.
Pontia	..	3	1	1	2	..	..	1	1
Elodina....	..	..	..	..	1	3	2	1	4
Terias	..	13	8	5	7	8	5	3	9
Pieris.....	1	21	8	3	4	4	3	6	5
Thyca.....	..	9	13	5	2	13	8	1	7
Tachyris ..	..	12	12	14	9	10	8	3	7
Prioneris ..	..	5	4						
Eronia	..	3	1	2	1	1	1	1	
Callosune..	..	3							
Colias	5	8	..	..	..	..	..	..	1
Idmais	..	5							
Thestias ..	..	4	3	..	..	..	..	2	
Iphias	..	1	3	1	1	3	..	1	
Dercas	..	2	1						
Gonepteryx	..	3							
Callidryas.	..	6	4	3	3	4	4	7	4
Total Species.	6	98	58	34	30	46	31	26	38
		157			139				

Thus, of the 279 species enumerated in this Catalogue, 157 have occurred in the Indian region, 139 in the Australian region, and six only of the 279 have been found in the Palæarctic region; but more accurate knowledge of the border districts will probably much increase this last number.

EXPLANATION OF THE PLATES.

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III. *On the Distribution of* Lepidoptera *in Great Britain and Ireland.* By Herbert Jenner Fust, Junr., M.A.

[Read 18th February, 1867—6th January, 1868.]

Mr. H. C. Watson, in his great work on "British Plants, and their Geographical Relations"—the *Cybele Britannica*—has divided Britain into eighteen provinces, and these again into thirty-eight sub-provinces. These divisions have been adopted by Mr. A. G. More and others engaged in investigations of a similar nature, and for the sake of uniformity will be employed here. "It is to be remembered," says Mr. Watson (C. B. vol. i. p. 18), "that these provinces are only arbitrary sections, adopted for convenience in description and reference, instead of counties. So far as they do correspond with peculiarities in the physical geography of Britain, it is an advantageous circumstance; although such a correspondence is not necessary to their object or use." This passage is quoted to show that not being in any way botanical divisions, they are just as applicable to the investigation of the distribution of insects as of plants.

The following is the arrangement referred to:—

List of Provinces and their included Counties.

(See Plate X.)

1. Peninsula.—Cornwall, Devon, Somerset.
2. Channel.—Dorset, Wilts, Isle of Wight, Hants, Sussex.
3. Thames.—Kent, Surrey, Berks, Oxford, Bucks, Middlesex, Herts, Essex.
4. Ouse.—Suffolk, Norfolk, Cambridge, Bedford, Huntingdon, Northampton.
5. Severn.—Gloucester, Worcester, Warwick, Stafford, Salop, Hereford, Monmouth.
6. South Wales.—Glamorgan, Caermarthen, Pembroke, Cardigan, Brecon, Radnor.

7. North Wales.—Montgomery, Merioneth, Caernarvon, Denbigh, Flint, Anglesea.
8. Trent.—Leicester, Rutland, Lincoln, Notts, Derby.
9. Mersey.—Cheshire, Lancashire.
10. Humber.—York.
11. Tyne.—Durham, Northumberland.
12. Lakes.—Westmoreland, Cumberland, Isle of Man.
13. West Lowlands. — Dumfries, Kirkcudbright, Wigton, Ayr, Lanark, Renfrew.
14. East Lowlands.—Berwick, Roxburgh, Peebles, Selkirk, Haddington, Edinburgh, Linlithgow.
15. East Highlands.—Fife, Kinross, Clackmannan, Stirling, Perth, Forfar, Kincardine, Aberdeen, Banff, Elgin, Nairn, and part of Inverness.
16. West Highlands.—Dumbarton, Argyle, Inverness westward of Loch Erricht, Isles adjacent from Arran to Skye.
17. North Highlands.—Ross, Cromarty, Sutherland, Caithness.
18. North Isles.—Hebrides, Orkney, Shetland.

To these four have been added to represent Ireland, viz :—

19. Ulster.
20. Connaught.
21. Leinster.
22. Munster.

The portion of Lancashire north of Morecambe Bay is included in the Lakes province, and Inverness is divided by the line of watershed between the eastern and western sides of Scotland, continued along Loch Erricht to the borders of Perthshire.

Counties arranged in Sub-provinces.

Province 1.	1.	South Peninsula.—Cornwall.
	2.	Mid Peninsula.—Devon.
	3.	North Peninsula.—Somerset.
Province 2.	4.	West Channel.—Wilts, Dorset.
	5.	Mid Channel.—Hants, Isle of Wight.
	6.	East Channel.—Sussex.
Province 3.	7.	South Thames.—Kent, Surrey.
	8.	North Thames.—Essex, Herts, Middlesex.
	9.	West Thames.—Berks, Bucks, Oxford.
Province 4.	10.	South Ouse.—Suffolk.
	11.	North Ouse.—Norfolk.
	12.	West Ouse.—Northampton, Hunts, Cambridge, Beds.
Province 5.	13.	South Severn.—Gloucester, Monmouth.
	14.	Mid Severn.—Hereford, Worcester, Warwick.
	15.	North Severn.—Salop, Stafford.
Province 6.	16.	South East Wales.—Radnor, Brecknock, Glamorgan.
	17.	South West Wales. — Cardigan, Caermarthen, Pembroke.
Province 7.	18.	North Wales.—Montgomery, Merioneth, Caernarvon, Denbigh, Flint, Anglesea.
Province 8.	19.	East Trent.—Lincoln.
	20.	West Trent.—Nottingham, Derby, Leicester, Rutland.
Province 9.	21.	Mersey. — Cheshire, Lancashire South of Morecambe Bay.
Province 10.	22.	East Humber.—Eastern York.
	23.	West Humber.—Western York.

Province 11. 24. Tyne.—Northumberland, Durham.

Province 12. 25. Lakes. — Cumberland, Westmoreland, Isle of Man, Lancashire North of Morecambe Bay.

Province 13. 26. South West Lowlands.—Dumfries, Kirkcudbright, Wigton.

27. North West Lowlands.—Ayr, Renfrew, Lanark.

Province 14. 28. East Lowlands.—Peebles, Selkirk, Roxburgh, Berwick, Haddington, Edinburgh, Linlithgow.

Province 15. 29. South East Highlands.—Fife, Kinross, Stirling, Clackmannan, Perth.

30. Mid East Highlands.—Forfar, Kincardine, Aberdeen.

31. North East Highlands. — Banff, Elgin, Nairn, Eastern Inverness.

Province 16. 32. Inner West Highlands. — Main Argyle, Dumbarton, Arran, Bute, Western Inverness.

33. Outer West Highlands. — Skye, Rum, Coll, Tiree, Mull, Colonsay, Isla, Jura, &c.

Province 17. 34. Lower North Highlands. — Ross, Cromarty.

35. Upper North Highlands.—Sutherland, Caithness.

Province 18. 36. North West Isles.—Hebrides.

37. Lower North Isles.—Orkney.

38. Upper North Isles.—Shetland.

The first column of figures in the above list indicates the combination of the thirty-eight "sub-provinces" into the eighteen "provinces" which were explained before. The counties of Lancashire and Inverness are divided as in the provinces, and Yorkshire is separated into East and West Humber by the rivers Humber, Ouse, and Wiske.

Arrangement and Nomenclature.

Mr. Doubleday's Synonymic List, published in 1859, has been followed, with these exceptions :—

1. The orthographical emendations suggested in the "Accentuated List," published by the Entomological Societies of Oxford and Cambridge, have been adopted.

2. The additional species contained in the supplements to Doubleday's list (1865, 1866) have been inserted, and a few names altered in conformity with those supplements; in the former case the sponsor's name has been appended, and in the latter, the name used in the original list put in brackets underneath the name now employed.

3. In the genus *Lithosia* the species are arranged as in the translation of M. Guénée's paper on that genus, in the "The Zoologist" for 1863; and the new species in the genus *Eupithecia* have been most kindly inserted for me in their proper places by Mr. Doubleday.

Sources of Information.

The sources from which my information has been drawn are the various periodicals, Transactions of Societies, and other publications (comprising nearly 200 volumes), and manuscript lists from many of the best Entomologists of the day. I cannot sufficiently express my sense of obligation to those gentlemen, who, often at the cost of much time and labour, have given me every assistance in their power, and without whose help the following Tables could never have been drawn up, even in their present imperfect state.

Especially it is wished to acknowledge the kind advice and information afforded by the following gentlemen :— Revs. H. Harpur-Crewe, G. Gordon, J. Greene, E. Horton; Dr. Knaggs; Messrs. C. G. Barrett, E. Birchall (from whom most of my information respecting the *Lepidoptera* of Ireland is derived), T. Blackmore, T. Chapman, G. B. Corbin, G. R. Crotch, J. C. Dale, H. Doubleday, A. Edmunds, C. Fenn, E. M. Geldart, G. Gascoyne, W. F. Kirby, G. F. Mathew, A. G. More, R. S. Scholfield, Howard Vaughan, J. Jenner Weir, and H. C. Watson.

The records of captures contained in the various magazines are often very erroneous, and in the endeavour to

sift the false from the true much difficulty has been felt; it has been thought better to err on the side of strictness, and the mark of doubt "o" has been used perhaps too freely, but it is so much easier to prove the presence of a species in any district than its absence, that it is hoped this will be considered a fault on the right side.

Another difficulty has been the absence of records of the occurrence of the commonest species; for whereas the capture of such insects as *Colias Edusa*, or *Acherontia Atropos*, which, though constantly found, are considered sufficiently rare to be always worth mentioning, have been recorded over and over again, the records of such species as *Pieris brassicæ*, *rapæ*, and *napi* would have been few and far between, had it not been for the information afforded by my correspondents.

The influence of the distribution of the food-plant upon that of the species whose larvæ feed upon it, the attachment of some species to certain geological formations, of others to mountains, and the different altitudes to which they attain, are questions of deep interest, and worthy of the closest attention; and should this paper be considered worthy of being accepted as a starting point, and local Entomologists do their utmost to add to, and correct the statements therein contained, our knowledge of the distribution of species in Britain would make rapid strides, and records of captures would gain a new interest, and be much more valuable than now, when it is almost impossible to know what are new facts in local entomology, and what are mere repetitions.

I have availed myself of the interval between the reading and the publication of this paper to make the Tables as complete as possible down to the end of 1867.

Explanation of Table I.

The figures in Table I. refer to the "provinces" previously explained on p. 417; the numbers opposite the name of each species indicating the provinces in which the occurrence of that species is reported on trustworthy evidence.

A blank space, or the substitution of a small horizontal mark (-) instead of a figure, indicates that no evidence has been found of the occurrence of the species in the corresponding province.

The substitution of the letter "o" indicates that the occurrence is doubtful, or that the evidence requires confirmation.

An asterisk affixed to the number of any province denotes that there is only one authority for the occurrence of the species under consideration in such province; but the number of observers in Ireland being very small, this mark has not been employed in provinces 19, 20, 21, 22.

In this and the following Tables, records at second hand have been admitted with caution, and no records of the capture of larvæ only, where the perfect insect has not been bred, have been considered satisfactory.

Where species are recorded as occurring at some town on the borders of a county or province without an exact locality being given, the doubtfully-placed localities are assumed to be within the same county or division as the town itself.

TABLE I.

Provincial Distribution.

Diurni.																						
Papilio.																						
Machaon	o	o	3	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	o	
Leucophasia.																						
Sinapis	1	2	3	4	5	o	–	8	o	o	–	12	–	–	–	–	–	–	–	20	–	22
Pieris.																						
Cratægi	1	2	3	4	5	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	22
Brassicæ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	17*	18*	19	20	21	22
Rapæ	1	2	3	4	5	6	7*	8	9	10	11	12*	13	14	15	–	–	18*	19	20	21	22
Napi	1	2	3	4	5	6*	–	8	9	10	11	12*	13	14	15	16	17*	–	19	20	21	22
Daplidice	o	2	3	4	o																	
Anthocharis.																						
Cardamines	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	–	–	–	19	20	21	22
Gonopteryx.																						
Rhamni	1	2	3	4	5	6*	–	8	9	10	11	12	–	–	–	–	–	–	–	–	–	22
Colias.																						
Edusa	1	2	3	4	5	6	7	8	9	10	11	12	13	–	o	o	–	–	19	–	21	22
Hyale	1	2	3	4	5	o	o	8	9*	10	–	–	–	–	–	–	–	–	–	–	21	22

ARGYNNIS.																						
Paphia	1	2	3	4	5	6	7	8	9	10	11	12*	–	–	o	o	–	–	19	20	21	22
Aglaia	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	o	–	19	20	21	22
Adippe	1	2	3	4	5	o	7*	8	9*	10	–	12	13*	–	–	o						
Lathonia	1	2	3	4	o	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	22
Euphrosyne	1	2	3	4	5	6	7*	8	9	10	11	12	13	o	15	16	o					
Selene	1	2	3	4	5	–	7	8	9	10	11	12	13	14	15	16						
MELITÆA.																						
Artemis	1	2	3	4	5	6	7	8	9	10	11	12	13	o	15	16	–	–	19	20	21	22
Cinxia	–	2	3	4	–	–	–	o														
Athalia	1	2	3	4	5	–	–	–	o	–	–	–	–	–	–	–	–	–	–	–	–	22
VANESSA.																						
C-album	1	2	3	4	5	6	7	8	9	10	11	12	–	o	o							
Urticæ	1	2	3	4	5	6*	o	8	9	10	11	12	13	14	15	16	–	–	19	20	21	22
Polychloros	1	2	3	4	5	6	7	8	9	10	o	o	–	–	–	–	–	–	–	o		
Antiopa	1	2	3	4	5	–	o	8	9	10	11	12	13	14	–	–	–	–	–	–	–	22
Io	1	2	3	4	5	6*	7	8	9	10	11	12	13	14	15	16	–	–	19	20	21	22
Atalanta	1	2	3	4	5	6	o	8	9	10	11	12*	13	14	15	16*	–	–	19	20	21	22
Cardui	1	2	3	4	5	6	7	8	9	10	11	12*	13	14	15	16	–	–	19	20	21	22
LIMENITIS.																						
Sibylla	–	2	3	4	o																	
APATURA.																						
Iris	1	2	3	4	o	o	–	8														
ARGE.																						
Galatea	1	2	3	4	5	6	–	8	–	10												
EREBIA.																						
Epiphron, Kn. [*Cassiope.*]	–	–	–	–	–	–	–	–	–	–	–	12	–	–	15	o	–	–	–	20		
Medea, W. V. [*Blandina.*]	–	–	–	–	–	–	–	–	–	10	11	12	13	o	15	16						
SATYRUS.																						
Egeria	1	2	3	4	5	6*	–	8	9	10	11	12*	13*	14	15	16	–	–	19	20	21	22
Megæra	1	2	3	4	5	6*	7*	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22
Semele	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	o	–	19	20	21	22
Ianira	1	2	3	4	5	6*	o	8	9	10	11	12*	13	14	15	16	–	–	19	20	21	22
Tithonus	1	2	3	4	5	6*	–	8	9	10	11	12	–	–	–	–	–	–	19	20	21	22
Hyperanthus	1	2	3	4	5	6*	7	8	–	10	11	12	13	14	15	16	–	–	19	20	21	22
CHORTOBIUS.																						
Davus	–	–	–	o	o	–	7*	–	9	10	11	12	13	14	15	16	17	18	19	20	–	22
Pamphilus	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	16	–	–	19	20	21	22
THECLA.																						
Rubi	1	2	3	4	5	6	7*	8	9	10	–	12	13	o	15	16	–	–	19	20	21	22
Quercus	1	2	3	4	5	6*	7	8	9	10	11	12	13	o	15	16	–	–	–	–	21	22
W-album	1	2	3	4	5	–	–	8	–	10												
Prunì	–	–	–	4	o																	
Betulæ	1	2	3	4	5	6	7	o	o	–	–	12	–	–	–	–	–	–	–	20	–	22
POLYOMMATUS.																						
Hippothoe	–	–	–	o																		
Phlœas	1	2	3	4	5	6*	7*	8	9	10	11	12	13	14	15	16	–	–	19	20	21	22
LYCÆNA.																						
Ægon	1	2	3	4	5	–	o	o	9	10	–	12*	–	o	o	–	–	–	–	20	21	
Agestis	1	2	3	4	5	6*	7*	8	9	10	11	12	13	14	15	–	–	–	–	–	21	
Alexis	1	2	3	4	5	6*	7	8	9	10	11	12	13	14	15	16*	17*	18*	19	20	21	22
Adonis	1	2	3	–	o																	
Corydon	1	2	3	4	5	–	–	–	–	–	–	12	–	–	–	–	–	–	19			
Acis	o	2	–	4	5	–	–	o	–	o	–	o										
Alsus	1	2	3	4	5	6*	–	8	9*	10	11	12	13	14	15	16	–	–	19	20	21	22
Argiolus	1	2	3	4	5	6*	–	8	9	10	11	12	–	–	–	–	–	–	19	20	21	22
Arion	1	2*	o	4	o																	
Bætica, Lin.	–	2*																				

NEMEOBIUS.																						
Lucina	1	2	3	4	5	o	–	–	–	10	–	12	13*	–	–	–	–	–	–	–	21	
SYRICHTHUS.																						
Alveolus	1	2	3	4	5	6*	–	8	–	10	o	12*	13									
THANAOS.																						
Tages	1	2	3	4	5	6*	7	8	9	10	11	12	13	–	15	–	o	–	19	20	21	22
HESPERIA.																						
Paniscus	–	2	3	4	o	–	–	o														
Sylvanus	1	2	3	4	5	6*	7	8	9	10	11	12	13*	14	–	–	–	–	–	–	21	22
Comma	1	2	3	4	–	–	o	–	–	10	–	–	–	–	o							
Linea	1	2	3	4	5	6	–	8	9*	10	–	12*	–	o	–	–	–	–	–	–	21	22
Actæon	1	2	–	–	o																	

Nocturni.

SMERINTHUS.																						
Ocellatus	1	2	3	4	5	–	7*	8	9	10	o	12	13*	–	–	–	–	–	–	–	21	22
Populi	1	2	3	4	5	6*	7	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22
Tiliæ	1	2	3	4	5	–	–	8	o	o	–	–	o	o								
ACHERONTIA.																						
Atropos	1	2	3	4	5	–	o	8	9	10	11	12	13	14	15	16	17*	18*	19	20	21	22
SPHINX.																						
Convolvuli	1	2	3	4	5	o	–	8	9	10	11	12	13	14	15	16	–	–	19	–	21	22
Ligustri	1	2	3	4	5	–	–	8	–	10	–	o	o	o	o	–	–	–	19	–	o	
DEILEPHILA.																						
Euphorbiæ	o	o	o	–	–	–	–	–	–	o	–	–	–	–	–	–	–	–	–	–	o	
Galii	1	2	3	4	5	–	–	8	9	10	11	12	o	o	o	–	–	–	–	–	21	22
Lineata	1	2	3	o	5	–	–	o	9	10	o	12	o	–	o	–	–	–	–	–	–	22
CHŒROCAMPA.																						
Celerio	1	2	3	4	5	–	o	8	9	10	11	12	o	14	o							
Porcellus	1	2	3	4	5	–	o	8	9	10	11	12	13	14	15	o	–	–	–	20	21	
Elpenor	1	2	3	4	5	–	7	8	9	10	11	12	13*	14	o	–	–	–	19	20	21	22
Nerii	1	2	3	o																		
MACROGLOSSA.																						
Stellatarum	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22
Fuciformis	1	2	3	4	–	–	–	8*	9*	10	o	–	o	o								
Bombyliformis	1	2	3	4	5	6	–	o	9	10	11	12	13	–	15	16	o	–	–	–	21	
SESIA.																						
Myopiformis	1	2*	3	4	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	21	22
Culiciformis	–	2	3	4*	o	o	–	8*	9	10	–	o	o	–	–	o	–	–	–	–	–	22
Formiciformis	o	–	3	4	5	–	–	8	–	o	o	–	–	–	–	–	–	–	–	–	–	22
Chrysidiformis	–	o	3	–	–	–	–	–	o													
Ichneumoniformis	1	2	3	–	o	–	–	–	–	10												
Cynipiformis	1	o	3	4	5	–	–	o	–	o												
Philanthiformis, Lasp.	1	–	–	–	–	–	–	–	–	–	–	12	–	–	–	–	–	–	–	–	21	
Tipuliformis	1	2	3	4	5	–	–	8	9	10	11	–	13	–	–	–	–	–	–	–	21	22
Andreniformis	–	2*	3																			
Scoliiformis	–	–	–	–	–	–	7	–	–	–	–	–	–	–	15*	–	–	–	–	–	–	22
Sphegiformis	o	2	–	o	5	–	o	8*	9	o												
Asiliformis	–	o	3	4*																		
Bombiciformis	1	2	3	4	5	–	7*	8	9	10	11	12	13	o	o	–	–	–	–	–	21	
Apiformis	1	2	3	4	5	–	–	o	–	–	o	–	o	–	–	–	–	–	–	–	–	22
MACROGASTER.																						
Arundinis	–	–	–	4																		
ZENZERA.																						
Æsculi	1	2	3	4	5	–	o	o	–	o												
COSSUS.																						
Ligniperda	1	2	3	4	5	–	–	8	9	10	o	o	13*	–	15	–	–	–	19	20	21	22

HEPIALUS.																						
Hectus	1	2	3	4	5	6*	–	8	9	10	11	12	13	–	15	16	17*	–	–	–	21	22
Lupulinus	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	–	–	–	19	20	21	22
Sylvanus.....	1	2	3	4	5	–	7*	8	9	10	11	12	13	14	15	16	–	–	–	–	21	
Velleda	o	2	3	–	5	6*	7*	8*	9	10	11	12	13	14	15	16	17*	–	19	20	21	22
Humuli	1	2	3	4	5	–	7*	8	9	10	11	12*	13	14	15	–	–	18*	19	20	21	22
LIMACODES.																						
Asellus	–	2	3																			
Testudo	–	2	3	o	5																	
PROCRIS.																						
Statices	1	2	3	4	5	6*	7	8	9	10	11	12	13*	–	–	o	–	–	–	–	21	22
Geryon, Hüb....	–	2	3	–	5	–	–	o	9*	10	11	o										
Globulariæ.....	–	2	3	–	5																	
ZYGÆNA.																						
Minos	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	20		
Nubigena,Mann	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	16	–	–	–	20	–	22
Trifolii.....	1	2	3	4	5	–	7	o	9	o	o	–	o	–	–	o	–	–	–	20	21	
Loniceræ.....	1	2	3	4	5	–	–	8	9	10	–	12*	–	–	–	o						
Filipendulæ ...	1	2	3	4	5	–	7	8	9	10	11	12	13	14	15	16	–	–	19	20	21	22
NACLIA.																						
Ancilla, Lin. ...	–	2*																				
NOLA.																						
Cucullatella ...	1	2	3	4	5	–	–	8	9	10	11*	12*	–	–	–	–	–	–	19	20	21	22
Confusalis, H.-S. [*Cristulalis.*]	1	2	3	4	5*	6*	–	–	9	10	11*	12	o	–	–	–	–	–	–	–	21	
Strigula	–	2	3	4	5*	–	–	8*	o	10*	11*	o	–	–	–	–	–	–	–	–	–	22
Centonalis	–	2																				
Albulalis, W. V...	–	–	3																			
NUDARIA.																						
Senex	o	o	3	4	o	–	–	–	–	10												
Mundana.....	1	2	3	4	5	–	–	8	9	10	–	12	13	14	15	16*	–	–	–	20	21	
SETINA.																						
Irrorella	1	2	3	o	5*	–	7*	–	–	o	–	o	–	–	–	16	–	–	–	20		
CALLIGENIA.																						
Miniata	1	2	3	4	5	–	–	o	–	10	–	–	–	–	–	–	–	–	–	20		
LITHOSIA.																						
Mesomella	1	2	3	4	5	–	o	o	9	10	–	12	–	–	–	o	–	–	–	–	21	
Muscerda	–	–	–	4																		
Unita, Esp. [*Aureola.*]	–	2	3	4	5	–	–	o	–	–	–	–	–	–	–	–	–	–	–	–	–	22
Pygmæola	–	–	3																			
Caniola, Hüb....	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	21	
Complana	1	2	3	4	5	–	–	–	9	o	–	12*	o	–	o	–	–	–	–	–	21	
Molybdeola,Gn.	–	–	–	–	–	–	–	–	9													
Lurideola, Tr. [*Complanula.*]	1	2	3	4	5	–	–	8	9*	o	–	o	–	–	o	–	–	–	–	20	21	22
Griseola	1	2	3	4	5	–	–	–	9	10*	o											
Stramineola ...	o	2	3	4	5	–	–	o														
Deplana, Esp. [*Helveola.*]	–	2	3	o	o	–	–	–	–	10	–	–	–	–	–	–	–	–	–	–	o	
Quadra	1	2	3	4	5	–	–	–	9*	10												
Rubricollis ...	1	2	3	4	5	–	–	8	9*	10	–	12	13	o	15	o	–	–	–	–	21	22
EULEPIA.																						
Grammica	–	–	3	o	–	–	7															
Cribrum	–	2	–	o																		
DEIOPEIA.																						
Pulchella	o	2	3	4	–	–	–	–	o													
EUCHELIA.																						
Jacobææ.....	1	2	3	4	5	6	7	8	9	10	11	12	–	14	15	16	–	–	19	20	21	22

CALLIMORPHA.																							
Dominula	1	2	3	4	5	o	7*	8*	–	–	–	–	–	–	–	–	–	–	–	–	21		
EUTHEMONIA.																							
Russula	1	2	3	4	o	6*	7	8	9	10	11	12	13	o	15	16	–	–	19	20	21	22	
CHELONIA.																							
Plantaginis	1	2	3	4	5	6*	7	8	9	10	11	12	13	14	15	16	–	18	19	–	21		
Caia	1	2	3	4	5	–	7	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22	
Villica	1	2	3	4	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	21		
ARCTIA.																							
Fuliginosa	1	2	3	4	5	–	–	8	9	10	o	12	13	14	15	16	17	–	19	20	21	22	
Mendica	1	2	3	4	5	6*	–	8*	9	10	11	–	–	–	–	–	–	–	19	–	21	22	
Lubricipeda	1	2	3	4	5	–	7*	8	9	10	11	12*	13	o	–	16	–	–	19	20	21	22	
Menthastri	1	2	3	4	5	–	7*	8	9	10	11	12	13	14	15	–	–	–	19	20	21	22	
Urticæ	o	2	3	4	5	–	–	–	9	–	–	–	o										
LIPARIS.																							
Chrysorrhœa	1	2	3	4	o	–	–	o	9	o	–	–	–	–	–	–	–	–	–	–	21		
Auriflua	1	2	3	4	5	–	7*	8	9	10	–	–	–	–	–	–	–	–	19	20	21	22	
Salicis	1	2	3	4	5	–	–	8	9	o	o	–	o	–	–	–	–	–	19	20	21	22	
Dispar	–	o	o	4	5	–	–	–	–	o	–	–	–	–	–	–	–	–	–	–	–	22	
Monacha	1	2	3	4	5	–	–	8	–	10	–	–	–	–	–	–	–	–	–	–	21	22	
ORGYIA.																							
Pudibunda	1	2	3	4	5	–	7	8	9	10	–	12	–	–	–	–	–	–	19	20	21	22	
Fascelina	–	2	3	4	5	–	–	o	9	10	o	12*	13	o	15	16	o	–	–	–	o		
Cœnosa	–	–	–	4																			
Gonostigma	o	2*	3	o	5	–	o	8*	–	10													
Antiqua	1	2	3	4	5	–	–	8	9	10	11	12*	13	14	15	–	–	–	19	20	21	22	
DEMAS.																							
Coryli	1	2	3	4	5	–	–	8*	–	10	o	12	13	14	15	16	o	–	19	–	21	22	
TRICHIURA.																							
Cratægi	1	2	3	4	5	–	–	8	9*	10	11	12	o	–	–	o	–	–	–	–	–	22	
PŒCILOCAMPA.																							
Populi	1	2	3	4	5	–	–	8	9	10	11*	12	13	–	15	o	–	–	19	20	21	22	
ERIOGASTER.																							
Lanestris	1	2	3	4	5	–	–	8	9	10	11	12*	13*	–	–	o	–	–	–	–	21		
BOMBYX.																							
Neustria	1	2	3	4	5	–	–	8	9	10	–	–	–	–	–	–	–	–	–	–	21	22	
Castrensis	o	–	3	o	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	o		
Rubi	1	2	3	4	5	6	7*	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22	
Quercus	1	2	3	4	5	–	o	8	9	10	o	o	o	o	o	o	o	–	–	–	21		
Callunæ	1	–	–	4	5*	–	–	–	9	10	o	12*	–	–	15	o	o	o	19	20	21	22	
Trifolii	1	2	3	o	o	o	–	–	9	–	o	–	–	–	–	–	–	–	–	–	o		
ODONESTIS.																							
Potatoria	1	2	3	4	5	–	7*	8	9	10	11	12*	13	o	o	16	o	–	19	20	21	22	
LASIOCAMPA.																							
Quercifolia	o	2	3	4	5	–	–	o															
Ilicifolia	1*	–	–	–	5	–	–	–	–	10													
ENDROMIS.																							
Versicolor	o	2	3	4	5	–	–	–	o	–	–	–	–	–	15	–	–	–	–	–	21		
SATURNIA.																							
Carpini	1	2	3	4	5	6*	o	8	9	10	11	12	13	14	15	16	–	–	19	20	21	22	
Geometræ.																							
UROPTERYX.																							
Sambucaria	1	2	3	4	5	6*	7*	8	9	10	11	12	o	o	–	–	–	–	–	20	21	22	
EPIONE.																							
Vespertaria	–	2*	–	o	–	–	–	–	–	10	–	–	–	–	–	–	–	–	–	–	21		
Apiciaria	1	2	3	4	5	–	–	8*	9	10	11*	12	o	–	15	16*	17*	–	–	–	21		
Advenaria	1	2	3	o	5	–	–	–	–	10	–	–	o										
RUMIA.																							
Cratægata	1	2	3	4	5	–	7*	8	9	10	11	12	13*	14	15	16*	–	–	19	20	21	22	

VENILIA.																						
Maculata	1	2	3	4	5	–	–	8	–	10	11*	12	13	–	o	o	–	–	–	–	21	
ANGERONA.																						
Prunaria	1	2	3	4	5	–	–	–	–	10	–	–	–	–	–	–	–	–	–	–	21	22
METROCAMPA.																						
Margaritaria ..	1	2	3	4	5	6*	7*	8	9	10	11	12	13	14	15	–	–	–	19	20	21	22
ELLOPIA.																						
Fasciaria	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16*	–	–	–	20	21	22
EURYMENE.																						
Dolabraria	1	2	3	4	5	–	–	8	9	10	11*	12	o	–	–	–	–	–	–	–	21	
PERICALLIA.																						
Syringaria	1	2	3	4	5	–	–	8	9*	10	–	o										
SELENIA.																						
Illunaria	1	2	3	4	5	–	–	8*	9	10	11	12	13	14	15	o	–	–	19	20	21	22
Lunaria	1	2	3	4	5	6*	–	8*	9	10	11*	12	o	o	o	–	–	–	–	–	21	
Illustraria	1	2	3	4	5	6*	–	o	o	o	o	o	–	–	o							
ODONTOPERA.																						
Bidentata	1	2	3	4	5	–	–	8	9	10	11	12*	13	14	15	–	–	–	19	20	21	22
CROCALLIS.																						
Elinguaria	1	2	3	4	5	–	–	8	9	10	11	12*	13	14	15	16*	–	–	19	20	21	22
ENNOMOS.																						
Alniaria	–	2	3																			
Tiliaria	1	2	3	4	5	–	–	8	9	10	11*	12*	13	–	15	16*	–	–	–	–	21	
Fuscantaria ...	1	2	3	4	5	–	–	8	9	10	11*	–	o									
Erosaria	1	2	3	4	5	–	–	8	9	10	–	–	o	–	–	–	–	–	–	–	–	22
Angularia	1	2	3	4	5	–	–	8	9	10	–	–	o	–	–	o	–	–	19	20	21	22
HIMERA.																						
Pennaria	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16	–	–	19	20	21	22
PHIGALIA.																						
Pilosaria	1	2	3	4	5	6*	–	8	9	10	11*	12*	13	14	15	–	–	–	–	–	21	22
NYSSIA.																						
Zonaria	–	–	–	–	–	–	7	–	9	–	–	–	–	–	–	o						
Hispidaria	–	2*	3	–	o	–	–	8	9	10												
BISTON.																						
Hirtarius	1	2	3	4	5	–	–	o	–	10	–	–	–	–	–	–	–	–	–	–	21	
AMPHIDASYS.																						
Prodromaria ...	1	2	3	4	5	–	–	8	9	10	11	12	–	–	–	–	–	–	–	–	21	
Betularia	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22
HEMEROPHILA.																						
Abruptaria ...	1	2	3	4	5	–	–	8	9	10	11*	12	–	–	–	–	–	–	–	–	21	
CLEORA.																						
Viduaria	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	21	
Glabraria	1*	2	o	–	–	–	–	–	–	o	–	12	o									
Lichenaria	1	2	3	4	5	–	–	–	9	10	11	12	13	14	15*	–	–	–	–	–	21	22
BOARMIA.																						
Repandaria.....	1	2	3	4	5	6*	–	8	9	10	11	12*	13*	14	15	16*	–	–	19	20	21	22
Rhomboidaria .	1	2	3	4	5	6*	–	8	9	10	–	–	o	–	–	o	–	–	–	–	21	
Perfumaria,New.	–	–	3																			
Abietaria	–	2	3	–	5	–	–	–	–	–	o	–	–	–	–	o						
Cinctaria	–	2	3*	–	–	–	–	–	–	–	–	o	–	–	–	o	–	–	–	–	–	22
Roboraria	–	2	3	o	5	–	–	–	9	10	–	–	–	–	–	–	–	–	–	–	21	
Consortaria ...	–	2	3	4*																		
TEPHROSIA.																						
Consonaria ...	o	2	3	4	o	–	–	–	–	–	–	o	–	–	–	–	–	–	–	–	21	22
Crepuscularia .	1	2	3	o	5	o	–	8	9	10	o	o	–	–	o	o	o	–	–	–	21	
Biundularia ...	1	2	3	4	5	–	–	–	9	10	11*	12	o	–	–	–	–	–	–	–	21	22
Extersaria	1*	2	3	4	5																	
Punctularia ...	1	2	3	4	5	–	–	8*	9	10	–	o	–	–	–	–	–	–	–	–	21	22
GNOPHOS.																						
Obscurata	1	2	3	o	5	–	7	8	9	10	–	12	o	14	15	16*	–	–	19	20	21	22

DASYDIA.																								
Obfuscata	–	–	–	–	–	–	–	–	–	–	–	o	o	–	15	16	17*	–	–	–	o			
PSODOS.																								
Trepidaria	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15	o								
MNIOPHILA.																								
Cineraria	–	–	–	–	–	6																		
BOLETOBIA.																								
Fuliginaria.....	–	–	3	–	5*																			
PSEUDOTERPNA.																								
Cytisaria	1	2	3	4	5	–	–	o	9	10	11	12	13	–	15	16	–	–	19	20	21	22		
GEOMETRA.																								
Papilionaria ...	1	2	3	4	5	6*	7*	8	9	10	11	12	13	o	15	16	–	–	–	20	21	22		
Smaragdaria ...	–	–	3																					
NEMORIA.																								
Viridata	1	2	o	o	5	–	–	–	9	o	–	12	–	–	–	–	–	–	–	–	21			
IODES.																								
Vernaria.....	1	2	3	4	5	–	–	–	–	–	–	–	–	–	–	–	–	19						
Lactearia	1	2	3	4	5	–	–	8	9	10	–	12	13	–	–	o	–	–	–	20	21	22		
PHORODESMA.																								
Baiularia.....	1	2	3	4	5	–	–	o	–	10	–	12*												
HEMITHEA.																								
Thymiaria	1	2	3	4	5	6*	–	8	9	10	–	12	–	–	15*	–	–	–	–	20				
EPHYRA.																								
Poraria	1	2	3	4	5	–	–	–	9*	–	–	–	o	–	–	o	–	–	–	–	21			
Punctaria	1	2	3	4	5	–	–	8	9	10	–	12	13	–	15	16*	–	–	–	–	21			
Trilinearia	–	2	3	o	5	6*	–	o	9*	10														
Omicronaria ...	1	2	3	4	5	–	–	o	9*	10														
Orbicularia.....	–	2	3	o	5																			
Pendularia.....	1	2	3	4	5	–	–	8	–	10	o	12	o	–	–	16	17*	–	–	–	21			
HYRIA.																								
Auroraria	–	2	o	4	–	–	–	–	9	o	–	12*	–	–	–	–	–	–	–	–	–	22		
ASTHENA.																								
Luteata	1	2	3	4	5	6	–	8	9	10	11	12	13*	–	–	o								
Candidata	1	2	3	4	5	6*	–	8*	9	10	11	12	13*	–	–	o	–	–	–	20	21	22		
Sylvata	1	2	3	o	5	6	–	8*	9	10	11	12	13*	–	–	–	–	–	–	20	–	22		
Blomeraria.....	1*	–	3	–	5	–	–	8	9	10	11													
EUPISTERIA.																								
Heparata	1	2	3	4	5	6	–	8	9	10	11													
VENUSIA.																								
Cambricaria ...	o	–	–	4	5	–	–	–	9	10	11*	12	o	–	–	16	–	–	–	–	21			
ACIDALIA.																								
Ochreata.....	–	–	3																					
Rubricata	–	–	3	4	–	–	–	–	–	10														
Scutulata	1	2	3	4	5	–	–	8	9	10	11	12	13*	14*	–	–	–	–	19	20	21	22		
Bisetata	1	2	3	4	5	–	–	8	9	10	11*	12*	13*	14	15	–	–	–	–	–	21			
Trigeminata ...	1	2	3	4	5	–	–	–	–	–	–	o	o	–	–	–	–	–	–	20				
Contiguaria ...	–	–	–	–	–	–	7																	
Rusticata	–	2	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	22		
Osseata	–	–	3*																					
Holosericata ...	o	–	3*	–	5																			
Interjectaria,Bdv.	–	–	3	4*																				
Incanaria	1	2	3	4	5	6*	–	–	9	10	11	12*	13	14	–	–	–	–	–	–	21			
Circellata	–	–	–	–	–	–	–	–	9															
Ornata	–	2	3	4	5	–	–	–	–	10*														
Promutata	1	2	3	4	5	6*	–	–	9*	–	11*	12*	o	–	–	–	–	–	–	–	21	22		
Straminata	–	2	3																					
Mancuniata,Knag.	–	–	–	–	–	–	–	–	9*															
Subsericeata ...	1	2	3	4*	5	–	–	8*	9	–	–	12	o	–	–	–	–	–	–	–	21			
Immutata	1	2	3	4	o	o	–	–	9	10	o	12	o	o	–	–	–	–	–	–	–	22		
Remutata	1	2	3	4	5	6*	–	8*	9	10	11	12	13	–	15	–	–	–	–	–	21	22		

Fumata	1	–	–	o	5	o	–	8*	9	10	–	12	13*	–	15	16	17*	–	–	–	–	22
Strigilata	–	2	3	o	–	–	–	–	–	–	–	o	–	–	–	–	–	–	–	–	21	
Imitaria	1	2	3	4	5	6*	–	8*	9	10	11	–	–	–	–	–	–	–	–	–	–	22
Emutaria	o	2	o	o	–	–	–	o														
Aversata	1	2	3	4	5	–	–	8	9	10	11*	12*	13*	14	15	o	–	–	–	20	21	
Inornata	–	2	3	o	o	–	–	–	9	10	o	12*	o	–	–	–	–	–	–	–	21	22
Degeneraria	–	2																				
Emarginata	1	2	3	4	5	–	–	–	9	10	–	–	o									
TIMANDRA.																						
Amataria	1	2	3	4	5	–	–	8	9	10	11*	–	–	–	o	–	–	–	–	20	21	22
CABERA.																						
Pusaria	1	2	3	4	5	6*	–	8	9	10	11	12*	13	14	15*	–	–	–	19	20	21	22
Rotundaria	–	2	3	o	5	–	–	–	–	10	o	–	o	–	o							
Exanthemaria	1	2	3	4	5	6*	–	8	9	10	o	12	13	14*	15	–	17*	–	19	20	21	22
CORYCIA.																						
Temerata	1	2	3	4	5	–	–	–	9	10	–	12	–	–	–	–	–	–	–	–	–	22
Taminata	1	2	3	4	o	–	–	–	–	10	–	o	–	–	–	–	–	–	–	–	–	22
ALEUCIS.																						
Pictaria	–	o	3																			
MACARIA.																						
Alternata.	1	2	o	o	–	–	–	–	o	–	–	o										
Notata	1	2	3	4	5	6*	–	–	–	–	–	–	–	–	o	–	–	–	–	–	–	22
Liturata	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16	–	–	–	20	21	22
HALIA.																						
Vauaria	1	2	3	4	5	–	o	8	9	10	11	12*	13	14	15	–	–	–	19	20	21	22
APLASTA.																						
Ononaria, Fuess.	–	–	3*																			
STRENIA.																						
Clathrata	1	2	3	4	5	6*	–	8	9	10	11	12	13*	–	–	o	–	–	–	20		
PANAGRA.																						
Petraria	1	2	3	4	5	–	–	8*	9	10	o	12	–	–	–	o	–	–	–	–	21	
NUMERIA.																						
Pulveraria	1	2	3	4	5	–	–	8	9	10	11	12	13*	–	15*	16	–	–	–	–	21	22
SCODIONA.																						
Belgiaria	o	2	3	–	–	–	7*	–	9	10	11*	–	13*	14	15	16	17*	–	19	20	21	22
SELIDOSEMA.																						
Plumaria	–	2	3	–	–	–	–	8*	9	–	–	–	–	–	–	–	–	–	–	–	–	22
FIDONIA.																						
Carbonaria	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15							
Atomaria	1	2	3	4	5	–	7*	8	9	10	11	12	13	14	15	16	17*	18*	19	20	21	22
Piniaria	1	2	3	4	5	–	7*	8	9	10	11	12	13	14	15	16	17*	–	–	–	21	22
Pinetaria	–	–	–	–	–	–	–	–	–	–	o	–	–	–	15							
Conspicuata	–	–	3	4	–	–	–	–	–	–	–	–	–	–	15							
MINOA.																						
Euphorbiata	1	2	3	4	5																	
SCORIA.																						
Dealbata	1*	2*	3	o	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	22
STERRHA.																						
Sacraria	1	2	3	–	5*	6*	–	8*	9	–	–	–	–	–	15*	–	–	–	–	–	–	22
LYTHRIA.																						
Purpuraria, Lin.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15*							
ASPILATES.																						
Strigillaria	1	2	3	4	5	–	–	–	9	10	–	12*	13*	–	–	–	–	–	–	–	–	22
Citraria	1	2	3	4*	–	6	–	–	–	–	–	–	o	–	–	o	–	–	–	–	21	
Gilvaria	1	2*	3	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	20	21	
ABRAXAS.																						
Grossulariata	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	–	–	–	19	20	21	22
Ulmata	1	2	3	4	5	–	7	8	9	10	11	12	o	–	–	–	–	–	–	–	21	
LIGDIA.																						
Adustata	1	2	3	4	5	–	–	–	–	10	–	12*	13*	–	–	–	–	–	–	20	21	

LOMASPILIS.																						
Marginata	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	16	–	–	19	20	21	22
PACHYCNEMIA.																						
Hippocastanaria	–	2	3	o																		
HYBERNIA.																						
Rupicapraria ...	1	2	3	4	5	6*	–	8	9	10	11	12*	13	14	15*	–	–	–	19	20	21	22
Leucophæaria ..	1	2	3	4	5	6*	–	8	9	10	11*	12	13	14	15	–	–	–	19	20	21	22
Aurantiaria ...	1	2	3	4	5	o	–	8*	9	10	11	12	13	14	15*	–	–	–	–	–	21	22
Progemmaria ...	1	2	3	4	5	6*	–	8	9	10	11	12*	13	14	15	–	–	–	–	20	21	22
Defoliaria	1	2	3	4	5	6*	–	8	9	10	11	12*	13	14	15	16*	–	–	–	–	21	22
ANISOPTERYX.																						
Æscularia	1	2	3	4	5	–	–	8	9	10	–	12	13	14	15	–	–	–	–	–	21	
CHEIMATOBIA.																						
Brumata	1	2	3	4	5	6*	–	8	9	10	11*	12*	13	14	15	–	–	–	19	20	21	22
Boreata	–	2	3	o	5	o	–	o	9	10	11*	12	o	–	o							
OPORABIA.																						
Dilutata	1	2	3	4	5	–	–	8	9	10	11*	12*	13	14	15	16*	–	–	19	–	21	22
Filigrammaria .	1	–	o	o	–	–	–	–	9	o	–	12	–	14	15	16						
LARENTIA.																						
Didymata	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	–	–	–	19	20	21	22
Multistrigaria .	1	2	3	o	5	–	–	8*	9	10	11	12	13	14	15	16	–	–	–	–	21	
Cæsiata	–	–	–	–	o	–	7	–	9	10	11	12	13	14	15	16	17	–	–	–	21	
Ruficinctata ...	–	–	–	–	–	–	–	–	–	–	11*	12	–	–	15	16	17*					
Salicata	o	–	–	–	–	o	–	–	9	10	11	12	–	–	15	16	17*	–	–	20	–	22
Olivata	1	2	3	4	5	6	–	8	9	o	11	12	13	14	15	16	–	–	–	20	21	22
Pectinitaria ...	1	2	3	4	5	6*	–	8	9	10	11*	12	13	14	15	–	–	–	19	20	21	22
EMMELESIA.																						
Affinitata	1	2	3	4	5	6*	–	8	9	10	11	12	–	–	15*	16*						
Alchemillata ...	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	16*	–	–	–	–	21	
Albulata	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	16*	–	–	–	20	21	22
Decolorata	1	2	3	4	5	–	7*	8	9	10	11	12	13	o	–	o	–	–	–	–	21	
Tæniata	–	–	–	–	5	–	–	8*	–	–	11	12	–	–	–	–	–	–	–	–	–	22
Unifasciata	1	2	3	o	5	–	o	–	9	–	11	12	o	–	–	o	–	–	–	–	21	
Ericetata.....	–	o	o	4*	–	–	–	–	o	–	–	12	13	14	15	16	17*	–	19			
Blandiata	–	o	–	o	5*	–	–	–	–	o	–	12	–	–	15	16	–	–	–	20	21	22
EUPITHECIA.																						
Venosata.....	1	2	3	4	5	–	–	8	–	10	11*	12	–	–	–	–	–	–	19	20	21	22
Consignata	–	o	3*	4*	5																	
Linariata.....	1	2*	3	4	5	–	–	8*	9	10	–	–	–	o								
Pulchellata.....	1	2	3	4	5	6	–	8	9	10	–	12	–	14	–	16	–	–	–	–	21	
Centaureata	1	2	3	4	5	–	–	8	9	10	11	12*	13	14	–	–	–	–	19	20	21	22
Succenturiata...	1	2	3	4	5	6	–	o	9	o	11	o	o	o	o	–	–	–	–	–	21	
Subfulvata, Ha.	1	o	3	4*	5	–	7	8	9	10	11*	12	–	14*	–	–	–	–	19	20	21	22
Subumbrata ...	1	2	3	4	5*	–	–	–	–	o	–	–	–	–	–	–	–	–	–	20		
Pernotata	–	–	o																			
Valerianata,Hb. [*Viminata.*]	1*	2*	3*	–	5*	–	–	8	o	–	–	o										
Plumbeolata ...	1	2	3	4	5	–	–	8*	9	10	–	12	13	o	o	–	–	–	–	–	–	22
Isogrammata,Tr. [*Haworthiata.*]	–	2	3	4	5	–	–	–	–	–	–	–	o	–	–	–	–	–	–	–	–	22
Pygmæata	o	–	o	4	5*	–	–	–	9	10	o	12	13	14	–	–	–	–	–	20	21	
Helveticaria ...	–	–	–	–	–	–	–	–	–	–	–	12*	–	14	o							
Arceuthata, Fr.	–	–	3*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	22
Satyrata	1*	2*	3	o	5*	–	–	–	9	10	11	12	13	14	15	o	o	–	–	–	21	22
Egenaria.....	–	2																				
Lariciata, Frey.	–	2*	3	–	5	–	–	–	–	10												
Castigata.....	1	2	3	4	5	–	–	8	9	10	o	12	13	14	15	–	–	–	–	20	21	22
Virgaureata,Dbl. [*Pimpinellata*]	1	–	3	4	–	–	o	–	9*	10	–	12	–	–	–	–	–	–	–	–	21	22
Albipunctata,Ha.	1*	2*	3	4*	5	–	–	8	–	10	–	12*										

Pusillata	1	2	3	o	–	–	–	–	–	–	–	o	–	–	o							
Irriguata	–	2	3	–	–	–	–	–	–	–	o	–	o									
Fraxinata, Cre. [*Innotata.*]	–	2	3	4	5	–	–	8	9	10	o	--	o	14	–	o	–	–	o	–	o	
Indigata	1*	2	3	–	o	–	–	–	9	10	–	12*	o	14	o							
Constrictata	1	2	3	–	–	–	7	8*	9*	o	–	12	o	o	15*	o	–	–	–	20	21	22
Nanata	1	2	3	4	5	–	7*	8	9	10	11*	12	13	14	15	16*	–	–	19	20	21	22
Subnotata	1	2	3	4*	5	o	–	8*	9*	o	–	–	–	–	–	–	–	–	19	20	21	22
Vulgata	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	–	–	–	19	20	21	22
Pimpinellata, Hb. [*Denotata.*]	o	2	3	4	5	–	7	8	–	o	–	o	–	–	–	–	–	–	–	–	–	22
Expallidata	–	2*	3	–	5*	–	7*	–	–	o	–	o	–	–	–	–	–	–	–	–	o	
Absinthiata	1	2	3	4	5	–	o	8	9	10	11	12	13	14	15*	–	–	–	–	–	21	
Minutata	–	2	3	o	5	–	–	8	o	10	o	–	o	o	o	–	–	–	–	–	21	22
Assimilata	1	2	3	4	5	–	–	8	9*	o	o	12	o	14	15	–	–	–	–	–	21	
Campanulata, H.-s.	–	–	3*	–	o	–	–	–	–	–	–	12*										
Trisignata, H.-s.	1*	–	3	4*	5	–	–	8	–	10	–	–	–	–	–	–	–	–	–	–	21	
Tenuiata	o	2*	3	4	5	6	–	8*	–	10	–	12	o	–	o	–	–	–	–	–	–	22
Subciliata	1	o	3	4	5*	–	o	–	–	–	o	o										
Dodoneata	–	2	3	4	5	–	–	8*	–	o												
Abbreviata	1	2	3	4	5	6*	–	8*	9	10	11	12	13*	14*	15*	–	–	–	–	–	21	
Exiguata	1	2	3	4	5	–	–	8	9	10	11	o	o	14	o	–	–	–	–	–	21	
Sobrinata	–	2*	3	4	o	–	–	8	9*	–	11	12	13	14	15*	o	–	–	–	–	21	
Togata	–	2	3	4*	–	–	–	–	–	10*	11*	–	o									
Pumilata	1	2	3	4	5	6	7*	–	9	10*	–	12	13	–	15*	16	o	–	19	20	21	22
Coronata	1	2	3	4	5	6	–	–	–	10*	–	–	–	–	–	–	–	–	–	–	21	
Rectangulata	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	–	–	–	19	20	21	22
Debiliata	1	–	–	–	5*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	22
COLLIX.																						
Sparsata	–	–	–	4	–	–	–	–	–	10												
LOBOPHORA.																						
Sexalata	o	2	3	4	5	–	–	–	9*	10	–	12	–	–	–	–	–	–	–	–	–	22
Hexapterata	1	2	3	4	5	–	–	8*	9*	10	11*	o	–	–	–	–	o					
Viretata	1	2	3	4	5	o	–	–	–	–	o	12	13*	–	–	–	–	–	o	–	–	22
Lobulata	1	2	3	4	5	o	–	–	9	10	11	12	13	14	15*	16	o					
Polycommata	–	2	3	o	5	–	–	–	–	o	–	12	o									
THERA.																						
Juniperata	–	–	3	o	–	–	–	–	–	–	o	o	13	–	o	o						
Simulata	1	2	3	4	–	–	–	8*	o	10	11	12	13	14	15	o	o					
Variata	1	2	3	4	5	–	–	8	9	10	o	12	13	14	15	–	17	–	–	20	21	
Firmata	1	2	3	4	5*	–	–	8*	9	10	–	12	13	14	15*							
HYPSIPETES.																						
Ruberata	o	2	3	4	–	–	–	8	9	10	–	o										
Impluviata	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	o	–	–	–	–	21	
Elutata	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	–	17*	–	–	20	21	22
MELANTHIA.																						
Rubiginata	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15*	16	–	–	–	–	21	
Ocellata	1	2	3	4	5	6*	–	8	9	10	11*	12	13	14	15	–	–	–	–	–	21	22
Albicillata	1	2	3	4	5	6	7*	8*	9	10	11	12	13*	–	–	–	–	–	–	20	21	22
MELANIPPE.																						
Hastata	–	2	3	4	5	–	o	8	9	10	11	12	13	–	15	16	–	–	–	20	21	22
Tristata	o	–	o	4*	o	–	–	o	–	10	11	12	13	14	15	16	–	–	–	20	21	
Procellata	1	2	3	4	5	6*																
Unangulata	1	2	3	4	5	–	–	–	9	o	–	–	–	–	o	–	–	–	19			
Rivata	1	2	3	4	5	o	–	–	9	o	–	o	–	–	–	–	–	–	–	–	–	22
Biriviata, Bork. [*Subtristata.*]	1	2	3	4	5	6*	–	8	9	10	11*	12	13*	14*	15	–	–	–	19	20	21	22
Montanata	1	2	3	4	5	6*	7*	8	9	10	11	12	13	14	15	–	–	18*	19	20	21	22
Galiata	1	2	3	4	5	6	–	8*	9	10	–	12	13*	14	–	16	–	–	19	20	21	22

Fluctuata	1	2	3	4	5	6*	–	8	9	10	11*	12*	13	14	15*	–	–	–	19	20	21	22
ANTICLEA.																						
Sinuata	1	2*	3	4																		
Rubidata.....	1	2	3	4	5	–	–	–	9*	–	o											
Badiata	1	2	3	4	5	–	–	8	9	10	11*	12*	13	14	15	–	–	–	–	–	21	
Derivata	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15*	16	–	–	–	–	21	
Berberata	–	2*	3	4	5	–	–	8*														
COREMIA.																						
Munitata.....	–	–	–	–	–	–	–	o	9*	10	11	12	13	14	15	16	–	–	19			
Propugnata.....	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15*	16	–	–	–	–	21	22
Ferrugata	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	16	–	–	19	20	21	22
Quadrifasciaria	1*	2*	3	4	5	–	–	–	–	–	–	o	o	–	–	–	–	–	19			
CAMPTOGRAMMA.																						
Bilineata	1	2	3	4	5	–	o	8	9	10	11*	12*	13*	14	15	–	17*	–	19	20	21	22
Fluviata	1	2	3	o	5	6*	–	o	9	10*	–	–	–	–	–	–	–	–	–	–	21	
PHIBALAPTERYX.																						
Tersata	1	2	3	4	5	–	–	–	–	o												
Lapidata	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15	o	17*					
Lignata	1	2	3	4	5	–	–	–	9	10	–	–	o	14	15	–	–	–	–	–	21	
Polygrammata .	–	–	–	4	o	–	–	–	–	–	–	o										
Vitalbata.....	1	2	3	4	5	–	–	–	o	o												
SCOTOSIA.																						
Dubitata	1	2	3	4	5	–	7*	8	9	10	11	12	13*	14	–	–	–	–	–	–	21	
Vetulata	–	2	3	4	5	6*	–	8*	–	o	–	o										
Rhamnata	o	2	3	4	5	–	–	8*	–	o												
Certata	1	2	3	4	5	–	–	–	–	o	o	–	–	–	–	–	–	–	–	–	21	
Undulata.....	1	2	3	4	5	–	–	o	9	10	–	12	o	–	–	–	–	–	–	–	21	
CIDARIA.																						
Psittacata	1	2	3	4	5	–	–	–	9*	10	11	12	13*	o	15	16	o	–	–	20	21	22
Miata	1	2	3	4	5	–	–	8*	9	10	11	12	13	14	15	16	17*	–	–	–	21	
Picata	1	2	3	4	–	–	7	–	–	–	o	–	o	–	o							
Corylata	1	2	3	4	5	–	–	8	9	10	11*	12	–	14	15	16	–	–	–	–	21	
Sagittata.....	–	–	–	4																		
Russata	1	2	3	4	5	6*	–	8	9	10	11*	12	13*	14	15	16	–	–	19	20	21	22
Immanata	1	2	3	4	5	6*	–	8	9	10	11	12	13*	14	15	–	17*	18*	19	20	21	22
Suffumata	1	2	3	4	5	–	–	8	9	10	11	12	13*	14	15	16	–	–	–	–	21	
Silaceata.....	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16	–	–	–	–	21	
Reticulata, w. v.	–	–	–	–	–	–	–	–	–	–	–	12										
Prunata	1	2	3	4	5	–	–	8	9	10	11*	12	13	14	15	16*	–	–	19	20	21	22
Testata	1	2	3	4	5	–	–	8	9	10	11*	12	13	14	15	16*	17*	–	19	20	21	22
Populata.....	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16	–	–	–	–	–	22
Fulvata.	1	2	3	4	5	6*	–	8	9	10	11	12*	13	14	15	16*	–	–	19	20	21	22
Pyraliata	1	2	3	4	5	6*	–	8	9	10	11	12*	13	14	15*	16	–	–	–	–	21	
Dotata	1	2	3	4	5	–	–	8	9	10	o	o	o	–	–	–	–	–	–	–	21	22
PELURGA.																						
Comitata.....	1*	2	3	4	5	–	–	8	9	10	11	12*	13	14	o	–	–	–	–	–	21	22
EUBOLIA.																						
Cervinaria	1	2	3	4	5	–	–	8	9	10	11	–	13	14	–	–	–	–	–	–	21	
Mœniata, Scop.	–	–	–	–	–	–	–	–	–	10*	–	o										
Mensuraria.....	1	2	3	4	5	–	–	8	9	10	11*	12	13	14	o	o	o	–	19	20	21	22
Palumbaria	1	2	3	4	5	6*	–	8*	9	10	11	12	13	14	15	16	–	–	19	20	21	22
Bipunctaria	1	2	3	o	5	–	–	8	–	10	11	–	–	–	–	–	–	–	–	–	21	
Lineolata	1	2	3	4	–	–	7*	–	9	o	–	–	–	–	–	–	–	–	–	–	o	22
CARSIA.																						
Imbutata.....	–	–	–	–	–	–	–	–	9	10*	11*	12	13	–	15	16	–	–	–	–	21	
ANAITIS.																						
Plagiata	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16	o	–	19	20	21	22
LITHOSTEGE.																						
Griseata, w.v....	–	–	–	4																		
[*Nivearia.*]																						

CHESIAS.																						
Spartiata	–	2	3	4	5	6*	–	–	–	10	11	12*	13	14	15	–	–	–	–	–	21	
Obliquaria	1*	2	3	4	–	–	–	–	–	–	11*	–	13	–	15							
TANAGRA.																						
Chærophyllata.	1	2	3	4	5	–	7	8	9	10	11	12	13	14	15	16	–	–	–	20	21	22
Drepanulæ.																						
PLATYPTERYX.																						
Lacertula	1	2	3	4	5	–	–	8	9	10	11*	12	o	–	o	16	17*	–	19	–	21	22
Sicula	1																					
Falcula	1	2	3	4	5	–	–	8	9	10	–	12	–	–	15	16	o	–	–	–	–	22
Hamula	1	2	3	4	5	o	–	–	–	–	–	o										
Unguicula	1	2	3	4	5																	
CILIX.																						
Spinula	1	2	3	4	5	–	–	8	9	10	–	12	13	14*	–	16*	–	–	19	–	21	22
Pseudo-Bombyces.																						
DICRANURA.																						
Bicuspis	–	2	o	o	o	–	–	8	9	10												
Furcula	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22
Bifida	1	2	3	4	5	–	–	8	9	10	–	o	–	–	–	–	–	–	19	20	21	22
Vinula	1	2	3	4	5	o	–	8	9	10	11	12	13	14	15	16*	17*	–	19	20	21	22
STAUROPUS.																						
Fagi	1	2	3	o	5	–	–	o														
PETASIA.																						
Cassinia	1	2	3	4	5	–	–	8	9*	10	11*	12	o	–	–	–	–	–	–	–	–	22
Nubeculosa.....	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15							
PYGÆRA.																						
Bucephala	1	2	3	4	5	–	o	8	9	10	11	12*	13	o	15	16	–	–	19	20	21	22
CLOSTERA.																						
Curtula	–	2	3	4	5	–	–	o	–	10	–	12	–	–	–	–	–	–	–	–	21	22
Anachoreta,w.v.	–	–	3																			
Reclusa	–	2	3	4	5	6*	–	o	–	10	o	12	o	14	15	16	–	–	19	–	21	22
GLYPHISIA.																						
Crenata	–	–	3																			
PTILOPHORA.																						
Plumigera	o	–	3	o																		
PTILODONTIS.																						
Palpina	1	2	3	4	5	–	–	8	9*	10	–	12	13	–	–	–	–	–	–	–	21	22
NOTODONTA.																						
Camelina	1	2	3	4	5	6	–	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22
Cucullina	o	2*	3	4																		
Carmelita	–	2	3	–	–	–	–	8*	–	–	–	12	–	–	15	o						
Bicolor.....	–	–	–	–	o	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	22
Dictæa	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16*	–	–	19	–	21	22
Dictæoides	o	2	3	4	5	6*	–	8	9	10	–	12	13*	o	o	16	–	–	–	–	21	22
Dromedarius ...	1	2	3	4	5	6*	–	8	9	10	–	12	13	14	15	16	–	–	19	20	21	22
Trilophus	o	–	3	–	o	–	–	–	–	–	–	–	o									
Ziczac	1	2	3	4	5	o	–	8	9	10	11	12	13	14	o	16	–	–	19	–	21	22
Trepida	1	2	3	4	5	6*	–	–	9	10	–	12	–	–	–	–	–	–	–	–	21	
Chaonia	1	2	3	4	5	–	–	8*	9	10	–	12	–	–	15	–	–	–	–	–	21	22
Dodonæa.....	o	2	3	4	5	6*	–	8	–	10	–	12	–	–	–	o	–	–	–	–	–	22
DILOBA.																						
Cæruleocephala	1	3	3	4	5	–	–	8	9	10	11	12	13	–	o	–	–	–	19	20	21	22

Noctuæ.																							
THYATIRA.																							
Derasa	1	2	3	4	5	6	–	8	9	10	o	12	–	–	–	–	–	–	–	20	21	22	
Batis	1	2	3	4	5	6	–	8	9	10	11	12	13	–	15	16	–	–	–	20	21	22	
CYMATOPHORA.																							
Duplaris	1	2	3	4	5	6	–	8*	9	10	11	12	13*	–	15	16*	17	–	–	–	–	22	
Fluctuosa	o	2	3	4*	5	–	7*	–	–	10	–	12	–	–	–	–	–	–	–	–	–	22	
Diluta	1	2	3	4	5	–	–	8	9*	10	–	12	13*	–	–	–	–	–	–	–	–	22	
Or	o	2	3	4	5	–	–	–	–	o	o	o	o	–	o	o	–	–	–	–	–	22	
Ocularis	–	–	3	4	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	21		
Flavicornis	o	2	3	o	5	6*	–	8	9	10	–	12	13*	–	15	16*	–	–	–	–	21		
Ridens	1	2	3	4	5	–	–	o	9*	o	–	12											
BRYOPHILA.																							
Glandifera	1	2	3	o	5																		
Perla	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15*	–	–	–	19	20	21	22	
Algæ	–	–	–	–	–	–	–	–	9*														
DIPHTHERA.																							
Orion	1	2	3	4	–	–	–	–	–	–	o												
ACRONYCTA.																							
Tridens	1	2	3	4	5	–	–	8	–	10	o	o	–	–	o	–	–	–	19	20	21	22	
Psi	1	2	3	4	5	–	–	8	9	10	11*	12*	13	14	15	16*	–	–	19	20	21	22	
Leporina	1	2	3	4	5	6*	–	8	9	10	11*	12	13	–	15	16*	o	–	–	–	21	22	
Aceris	1*	2	3	4	–	–	–	o	o	–	–	–	o	–	–	–	–	–	–	20			
Megacephala	1	2	3	4	5	–	–	8	9	10	–	o	–	–	–	–	–	–	–	–	21	22	
Strigosa	–	–	–	4																			
Alni	1	2	3	4	5	–	–	8	9	10	–	–	–	–	–	–	–	–	–	20	21		
Ligustri	1	2	3	4	5	–	–	8*	9*	10	–	12	13*	–	15	16	–	–	–	20			
Rumicis	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	16	–	–	19	20	21	22	
Auricoma	o	2	3	o	–	–	–	–	–	o													
Menyanthidis	–	–	–	4*	5*	–	–	o	9	10	o	12	13*	–	15	16							
Myricæ	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15	o	–	–	–	–	–	22	
SIMYRA.																							
Venosa.	–	–	–	4																			
SYNIA.																							
Musculosa	–	2																					
LEUCANIA.																							
Conigera	1	2	3	4	5	6	7*	8	9	10	11	12	13	14	15	–	–	–	19	20	21	22	
Vitellina	–	2																					
Turca	–	2	3	o	–	o	–	–	9*	–	–	–	o										
Lithargyria	1	2	3	4	5	6*	–	8	9	10	11	12*	13	14	15*	–	–	–	19	20	21	22	
Extranea, Gn.	–	2																					
Obsoleta	–	–	3	o	–	–	–	–	–	–	–	–	–	–	–	–	–	–	19	–	21		
Loreyi, Dup.	–	2																					
Littoralis	1	2	o	o	o	o	o	8	9	–	–	o	o	–	–	–	–	–	–	–	21	22	
Putrescens, Hb.	1																						
Pudorina	–	2	o	4	–	6	–	–	–	10	–	–	–	–	–	–	–	–	–	–	–	22	
Comma	1	2	3	4	5	6*	–	8	9	10	11	12*	13*	–	15*	–	–	–	19	20	21	22	
Straminea	1*	2	3	o	o																		
Impura	1	2	3	4	5	6*	–	8	9	10	11	12*	13	14	15	16*	–	–	19	20	21	22	
Pallens	1	2	3	4	5	6*	–	8	9	10	11*	12*	13	14	15	–	–	–	19	20	21	22	
Phragmitidis	–	–	3	4	–	–	–	–	–	o	–	–	–	–	–	–	–	–	o				
MELIANA.																							
Flammea	–	–	–	4																			
SENTA.																							
Ulvæ	–	–	3	4																			
TAPINOSTOLA.																							
Bondii, Knaggs.	–	2	3																				
Elymi, Tr.	–	–	–	4																			
NONAGRIA.																							
Despecta	–	2	3	4	o	–	–	–	9*	–	–	–	–	–	–	–	–	–	–	20	21		

Fulva	1	2	3	4	5	6*	–	8	9	10	11	12	13*	14	15	16	17*	–	19	–	21	22
Concolor	–	–	–	4	–	–	–	–	–	o	–	–	–	–	–	–	–	–	–	–	o	
Hellmanni	–	–	–	4																		
Neurica	–	–	–	4																		
Brevilinea, Fen.	–	–	–	4*																		
Geminipuncta	1*	–	3	4																		
Cannæ	–	2	–	4	–	–	–	–	–	o												
Typhæ	1	2	3	4	5	6*	–	8	9	10	–	–	–	–	–	–	–	–	19	–	21	
Lutosa	1	2	3	4	5	o	–	8*	9	10	–	–	–	–	o							
GORTYNA.																						
Flavago	1	2	3	4	5	–	–	8	9	10	11*	–	o	–	o	–	–	–	–	–	21	
HYDRŒCIA.																						
Nictitans	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16	17*	–	19	20	21	22
Petasitis	–	–	–	o	–	o	–	–	9	o	–	12	o	14	15*	–	–	–	–	–	21	
Micacea	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16*	–	–	19	–	21	
AXYLIA.																						
Putris	1	2	3	4	5	–	–	8	9	10	11*	12	13	14	15*	16*	–	–	19	20	21	22
XYLOPHASIA.																						
Rurea	1	2	3	4	5	6	–	8	9	10	11	12	13	14	15	–	–	–	19	20	21	22
Lithoxylea	1	2	3	4	5	6*	–	8	9	10	11*	12	13*	14	15*	16*	–	–	19	20	21	22
Sublustris	1	2	3	4	5	–	–	o	o	10	11	12	–	–	–	–	–	–	–	20	21	
Polyodon	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	–	17*	–	19	20	21	22
Hepatica	1	2	3	4	5	6*	7	8	9	10	11*	–	13*	–	–	–	–	–	–	–	21	
Scolopacina	1	–	3	4	5	–	–	8	9	10	–	o										
DIPTERYGIA.																						
Pinastri	1	2	3	4	o	–	–	–	o													
XYLOMIGES.																						
Conspicillaris	o	–	3	–	5																	
APOROPHYLA.																						
Australis	1	2	3																			
LAPHYGMA.																						
Exigua	o	2	3																			
NEURIA.																						
Saponariæ	o	2	3	4	5	–	7*	8*	o	10	–	–	–	–	–	–	–	–	–	–	o	
HELIOPHOBUS.																						
Popularis	1	2	3	4	5	–	–	8	9	10	11	12*	13*	14	15*	–	–	–	19	20	21	22
Hispidus	1	2	–	–	o																	
CHARÆAS.																						
Graminis	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22
PACHETRA.																						
Leucophæa	–	o	3																			
CERIGO.																						
Cytherea	1	2	3	4	5	–	7	8	9	10	11	12	13*	–	–	–	–	–	19	20	21	22
LUPERINA.																						
Testacea	1	2	3	4	5	–	7*	8*	9	10	11*	12	13	14	15	–	–	–	19	20	21	22
Gueneei, Dbl.	–	–	–	–	–	–	7															
Dumerili	–	o	–	–	–	–	–	–	–	–	–	–	–	–	–	16						
Cæspitis	o	2	3	4	5	6*	–	8	9	10	–	o	–	–	–	o	–	–	–	–	21	
CRYMODES.																						
Exulis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15	16						
MAMESTRA.																						
Abjecta	1*	2	3	4	–	–	7	–	9	10	11	–	–	–	–	–	–	–	–	–	–	22
Anceps	o	2	3	4	5	–	–	8*	9	10	11	o	o	14	–	–	–	–	–	–	21	
Albicolon	1	–	o	4*	–	o	–	–	9	–	11	12	–	–	–	–	–	–	–	–	21	22
Furva	1	–	3	4	5	–	7	o	o	10	o	12	13*	14	15	o	–	–	–	–	21	
Brassicæ	1	2	3	4	5	–	–	8	9	10	11	12*	13	14	15	–	–	–	19	20	21	22
Persicariæ	1	2	3	4	5	–	7*	8	9	–	–	–	–	–	o	–	–	–	–	–	21	
APAMEA.																						
Basilinea	1	2	3	4	5	–	–	8	9	10	11*	12*	13	14	15	16*	–	–	19	20	21	22
Connexa	–	–	–	o	–	–	–	o	–	10												

Gemina	1	2	3	4	5	–	–	8	9	10	–	12	13	14	15*	16	–	–	19	20	21	22
Unanimis	1	2	3	4	5	–	–	8	9	10	11	o	o	14	–	–	–	–	–	–	21	
Ophiogramma	–	–	3	o	–	–	–	–	–	–	o	–	–	–	–	–	–	–	–	–	o	
Fibrosa	–	2	3	4	–	o	–	–	–	10	–	–	o	o	–	–	–	–	–	–	21	22
Oculea	1	2	3	4	5	–	–	8	9	10	11*	12*	13	14	15	–	–	–	19	20	21	22
MIANA.																						
Strigilis	1	2	3	4	5	–	7*	8	9	10	11*	12	13	14	15*	16	–	–	19	20	21	22
Fasciuncula	1	2	3	4	5	6*	–	8	9	10	11	12*	13*	14	15	–	–	–	19	20	21	22
Literosa	1	2	3	4	5	6*	–	8	9	10	11	12	–	14	o	–	–	–	19	–	21	
Furuncula	1	2	3	4	5	–	–	8	9	10	11	12*	13	14	15*	–	–	–	19	20	21	22
Arcuosa	1	2	3	4	5	–	–	8	9	10	11	12	13*	14	15*	16*						
PHOTEDES.																						
Captiuncula, Tr. [*Expolita.*]	–	–	–	–	–	–	–	–	–	–	11	o	–	–	–	–	–	–	–	20		
CELÆNA.																						
Haworthii	–	2	–	4	–	6*	–	–	9	10	11*	12*	13	14	o	16	17*	–	19	–	21	
GRAMMESIA.																						
Trilinea	1	2	3	4	5	6	–	8	9	10	11*	12	13*	–	–	–	–	–	19	20	21	22
HYDRILLA.																						
Palustris, Hüb.	–	–	–	4*	–	–	–	–	–	10*												
ACOSMETIA.																						
Caliginosa	–	2																				
CARADRINA.																						
Morpheus	1	2	3	4	5	–	–	8	9	10	11	o	13*	14								
Alsines	1	2	3	4	5	–	o	8	9	o	o	o										
Blanda	1	2	3	4	5	–	–	8	9	10	11	–	–	14	–	–	–	–	19	20	21	22
Cubicularis	1	2	3	4	5	–	–	8	9	10	11*	12	13	14	15	–	–	–	19	20	21	22
RUSINA.																						
Tenebrosa	1	2	3	4	5	6*	7	8	9	10	11	12	13	14	15	16	–	–	19	20	21	22
AGROTIS.																						
Valligera	1	2	3	4	o	o	7*	8*	9	10	11	12	13	14	15	–	–	–	19	20	21	22
Puta	1	2	3	4	5	–	–	8	9	–	–	–	o									
Suffusa	1	2	3	4	5	–	–	8	9	10	11*	12*	13	14	15	16	–	–	–	–	21	
Saucia	1	2	3	4	5	6*	–	8	9	10	o	12*	13*	–	15	–	–	–	–	–	21	
Segetum	1	2	3	4	5	–	–	8	9	10	11	12	13*	14	15	16*	–	–	19	20	21	22
Lunigera	1	2	–	–	–	–	7*	–	–	o	o	–	–	14	o	–	–	–	–	–	21	22
Exclamationis	1	2	3	4	5	–	7*	8	9	10	11	12*	13	14	15	16*	–	–	19	20	21	22
Corticea	1	2	3	4	5	–	7	o	9	10	11*	12	13*	14	o	–	–	–	19	20	21	22
Cinerea	–	2	3	–	5	–	7*															
Ripæ	1	–	–	o	–	o	–	–	–	–	–	12	–	–	–	–	–	–	–	–	21	
Cursoria	1	2	3	4	5*	6*	7*	–	9	–	11	12	13	14	o	–	–	–	–	–	21	
Nigricans	1	2	3	4	5	–	–	–	9	10	11	o	13	14	15	–	–	–	19	20	21	22
Tritici	1	2	3	4	o	6	–	8	9	10	11	12	13	14	15*	–	–	–	19	20	21	22
Aquilina	1	2	3	4	5	–	–	o	9	10	o	–	–	–	o	–	–	–	–	–	21	
Obelisca	o	2	–	–	o	–	–	8*	9*	10	–	–	o	14	–	–	–	–	–	–	21	
Agathina	o	2	3	4*	–	–	–	–	9	10	–	–	–	–	15	–	–	–	–	–	21	
Porphyrea	1	2	3	4	5	6*	7*	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22
Præcox	1	2*	3	4	5*	6	7	–	9	o	–	12	13	14	15*	–	–	–	–	–	21	
Ravida	–	2*	3	4	5	–	–	o	–	10	11	–	–	14	–	–	–	–	–	–	o	
Pyrophila	–	2	3	–	5	–	7*	–	9	10	o	12	o	14	15*							
Lucernea	1	2	3	–	–	o	7	–	–	–	–	o	13	14	o	16	–	–	–	–	21	
Ashworthii	–	–	–	–	–	–	7															
TRYPHÆNA.																						
Ianthina	1	2	3	4	5	6*	–	8	9	10	11*	12	13	14	15	16*	–	–	19	–	21	22
Fimbria	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	16	–	–	–	–	21	22
Interjecta	1	2	3	4	5	–	–	8	9	10	–	–	–	–	–	–	–	–	19	–	21	22
Subsequa	–	2	–	4	–	–	–	8	–	–	o	o	–	–	–	–	–	–	–	20		
Orbona	1	2	3	4	5	–	7*	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22
Pronuba	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	–	–	–	19	20	21	22

NOCTUA.																						
Glareosa	1	2	3	4	5*	–	–	8	9	10	11*	12	13*	14	15	16	17*	–	–	–	21	22
Depuncta	o	–	–	4*	5*	–	–	–	9*	10	–	12	–	–	15							
Augur	1*	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22
Plecta	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22
Flammatra, Fb.	–	2																				
C-nigrum	1	2	3	4	5	6*	–	8	9	10	11	12*	13*	14	15	16*	–	–	–	20	21	22
Ditrapezium	1	2	3	–	–	–	o	–	–	–	–	–	–	–	–	–	–	–	–	20		
Triangulum	1	2	3	4	5	–	7*	8	9	10	11*	o	o	o	o	o	–	–	–	20	21	22
Rhomboidea	–	o	3	o	o	–	–	o	–	10	o	o	o									
Brunnea	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	16	–	–	19	20	21	22
Festiva	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	–	–	–	19	20	21	22
Conflua	–	–	–	–	–	–	–	–	–	–	–	o	–	–	15	–	o					
Dahlii	1	2	3	o	–	–	–	8	9	10	–	12	–	o	–	o	–	–	–	–	21	22
Subrosea	–	–	3*	4	o																	
Rubi	1	2	3	4	5	–	–	8*	9	10	–	12	13*	14	o	–	–	–	19	20	21	22
Umbrosa	1	2	3	4	5	–	–	8	9	10	11	12*	13	14	15	–	–	–	19	20	21	22
Baia	1	2	3	4	5	–	–	8	9	10	11*	12	13*	14	15	16*	–	–	19	20	21	22
Sobrina	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15							
Neglecta	1	2	3	–	–	–	–	–	–	10	o	12	–	–	o	–	–	–	–	20	–	22
Xanthographa	1	2	3	4	5	–	–	8	9	10	11*	12	13	14	15	16*	–	–	19	20	21	22
TRACHEA.																						
Piniperda	1	2	3	4	5	–	–	8	9	10	–	12	13	14	15							
PACHNOBIA.																						
Alpina	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15							
TÆNIOCAMPA.																						
Gothica	1	2	3	4	5	–	7*	8	9	10	11*	12*	13	14	15	–	17*	–	19	20	21	22
Leucographa	1	2	3	4	o	–	–	o	–	10	–	12										
Rubricosa	1	2	3	4	5	–	7*	8	9	10	11	12*	13*	14	15	16	–	–	–	–	21	
Instabilis	1	2	3	4	5	–	7*	8	9	10	11	12*	13	14	15	–	–	–	19	20	21	22
Opima	–	2*	o	o	o	6*	–	–	9	10	–	12	o									
Populeti	1	o	3	4	5	–	–	8	9	10	–	12	o	–	–	o	–	–	–	–	21	22
Stabilis	1	2	3	4	5	–	7*	8	9	10	11*	12*	13	14	15	–	–	–	19	20	21	22
Gracilis	1	2	3	4	5	–	–	8	9	10	11	12	13*	o	–	o	–	–	–	–	–	22
Miniosa	1	2	3	o	5	–	–	–	–	10	–	12										
Munda	1	2	3	4	5	6*	7*	8	9	10	–	12	13*	–	–	–	–	–	–	–	–	22
Cruda	1	2	3	4	5	6*	7*	8	9	10	–	12*	–	–	o	–	–	–	19	20	21	22
ORTHOSIA.																						
Suspecta	–	–	o	o	–	–	–	8	9*	10	–	12	–	14	o							
Upsilon	1	2	3	4	5	–	–	8	9	10	11*	–	–	–	–	–	–	–	–	–	21	
Lota	1	2	3	4	5	–	–	8	9	10	11*	12*	13	o	–	16*	–	–	–	–	21	
Macilenta	1	2	3	4	5	–	–	8	9	10	11	12	13*	–	o	16*	–	–	–	–	21	22
ANCHOCELIS.																						
Rufina	1	2	3	4	5	6*	–	8	9	10	–	12	13*	14	15	16*	17*	–	19	20	21	22
Pistacina	1	2	3	4	5	6*	–	8	9	10	–	–	13*	–	–	–	–	–	19	–	21	
Lunosa	1	2	3	4	5	6*	7*	8	9	10	11	12	13	14	–	–	–	–	–	–	21	
Litura	–	2	3	4	5	6*	–	8	9	10	11*	12*	13	14	15	–	–	–	–	–	21	
CERASTIS.																						
Vaccinii	1	2	3	4	5	6*	7*	8	9	10	11*	12*	13	14	15	16	–	–	19	–	21	22
Spadicea	1	2	3	4	5	–	–	8	9	10	11	12	13*	–	o	–	–	–	19	–	21	22
Erythrocephala	1	2	3	–	–	–	–	o														
SCOPELOSOMA.																						
Satellitia	1	2	3	4	5	6*	7*	8	9	10	11	12*	13	14	15	16*	–	–	19	20	21	22
DASYCAMPA.																						
Rubiginea	1	2	3	o	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	21	22
OPORINA.																						
Croceago	1	2	3	o	5	o	–	–	–	o	–	–	–	–	–	–	–	–	–	–	21	
XANTHIA.																						
Citrago	1	2	3	4	5	–	–	8	9	10	o	o	o	–	–	–	–	–	19	–	21	
Cerago	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	16*	–	–	–	–	21	

Silago	1	2	3	4	5	6*	–	8	9	10	11	12	o	14	15	–	–	–	19	–	21		
Aurago	o	2	3	4	5	–	–	–	–	o	–	–	–	–	–	–	–	–	–	–	o		
Gilvago	–	2	o	o	5	–	–	8	–	10	o	–	–	–	–	–	o						
Ferruginea	1	2	3	4	5	–	–	8	9	10	–	12*	13*	14	15	–	–	–	19	20	21	22	
CIRRHŒDIA.																							
Xerampelina	o	2	3	4	5	–	–	8	–	10	11*	12	–	–	o	o							
TETHEA.																							
Subtusa	1	2	3	4	5	o	–	8	9	10	–	12	o	–	–	o							
Retusa	1	2	3	4	5	6*	–	8*	–	10	–	–	o										
EUPERIA.																							
Fulvago	–	–	o	–	–	–	–	8	–	o	–	12	–	–	–	–	–	–	–	–	o		
DICYCLA.																							
Oo	–	2	3	4	5																		
COSMIA.																							
Trapezina	1	2	3	4	5	–	–	8	9	10	–	12*	13	14	15	16*	–	–	19	20	21	22	
Pyralina	o	2	3	4	o																		
Diffinis	1	2	3	4	5	–	–	8*	–	10													
Affinis	1	2	3	4	5	–	–	8	–	10	–	–	–	–	–	–	–	–	–	–	21		
EREMOBIA.																							
Ochroleuca	1*	2	3	4	5*	–	–	o	–	10													
DIANTHŒCIA.																							
Carpophaga	1	2	3	4	5	–	7	8*	9*	10	11*	12	–	14	–	–	–	–	–	–	o		
Capsophila, Bdv.	–	–	–	–	–	–	o	–	–	–	–	12	–	–	–	–	–	–	–	–	21		
Capsincola	1	2	3	4	5	–	–	8	9	10	11	12	13*	14	o	–	–	–	–	–	21		
Cucubali	1	2	3	4	5	–	–	8*	9	10	11	12	13	14	15	16	–	–	–	–	21	22.	
Conspersa	1	2	3	o	–	–	–	8*	9	10	o	12	13	14	–	16	–	–	19				
Barrettii, Dbl.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	21		
Cæsia, W. V.	–	–	–	–	–	–	–	–	–	–	–	12	–	–	–	–	–	–	–	–	–	22	
HECATERA.																							
Dysodea	1*	2	3	4	o	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	21		
Serena	1	2	3	4	5	–	–	8	–	o	o	–	–	–	–	–	–	–	19	–	21		
POLIA.																							
Chi	1	–	3*	4	5	–	–	8	9	10	11	12	13	14	15	16	–	–	–	–	21		
Flavicincta	1	2	3	4	5	–	–	8	–	10	11	–	–	–	–	–	–	–	–	–	21		
Nigrocincta, Och.	1*	–	–	–	–	–	–	–	–	–	–	12*											
DASYPOLIA.																							
Templi	1	2	–	–	5	–	–	8*	9	10	–	o	–	–	o	–	–	–	–	–	21		
EPUNDA.																							
Lutulenta	1	2	3	4*	5	–	–	–	9	o	o	o	–	–	o	–	–	–	–	20	21		
Nigra	1	2	3*	4*	–	6	–	–	o	o	o	12	–	–	15	o							
Viminalis	1	2	3	4	5	6*	–	8	–	10	o	o	–	14	o	o	–	–	19	–	–	22	
Lichenea	1	2	–	o	o	–	–	–	9	o	–	–	–	–	–	–	–	–	–	–	21		
VALERIA.																							
Oleagina	–	–	–	–	–	6																	
MISELIA.																							
Oxyacanthæ	1	2	3	4	5	6*	–	8	9	10	11*	12*	13	14	15	16*	–	–	19	20	21	22	
AGRIOPIS.																							
Aprilina	1	2	3	4	5	–	–	8	9	10	11*	12	13	14	15	16*	–	–	19	–	21		
PHLOGOPHORA.																							
Meticulosa	1	2	3	4	5	6	–	8	9	10	11	12	13	14	15	–	–	–	19	20	21	22	
Empyrea	–	2																					
EUPLEXIA.																							
Lucipara	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	16	–	–	19	20	21	22	
APLECTA.																							
Herbida	1	2	3	4	5	6	7*	8	9	10	11	12	13	–	15	16	–	–	19	20			
Occulta	–	2	3	o	–	o	–	o	9	10	o	12*	13*	14	15	–	o						
Nebulosa	1	2	3	4	5	–	–	8	9	10	11	12	13*	–	15	16	–	–	–	20			
Tincta	o	2	3	–	5	–	–	o	o	–	–	o	–	–	15	16*	o						
Advena	1	2	3	4	5	–	–	–	–	10	11*	12	13*	14	15								

HADENA.																						
Satura	–	–	3	4*	–	–	–	–	–	–	–	–	–	–	o	–	–	–	–	–	o	
Adusta	1	2	3	4	5	6*	–	8	9	10	11	12	13	14	15	16	17*	–	19	20	21	22
Protea	1	2	3	4	5	–	–	8	9	10	–	12*	13	14	o	–	–	–	–	–	21	
Glauca	–	–	–	4	5	–	–	o	9	10	–	12	–	14	15	16*	o					
Dentina	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16	–	–	–	20		
Peregrina	–	2																				
Chenopodii	1	2	3	4	5	–	–	–	–	o	o	o	–	o	–	–	–	–	–	–	21	22
Atriplicis	–	–	3	4	–	–	–	–	o													
Suasa	1*	2	3	4	5	–	–	8*	9	10	o	–	o	–	–	–	–	–	–	–	21	
Oleracea	1	2	3	4	5	6*	–	8	9	10	11	12*	13	14	15	–	–	–	19	20	21	22
Pisi	1	2	3	4	5	6*	o	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22
Thalassina	1	2	3	4	5	6	–	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22
Contigua	–	2	3	4	5	6	–	o	9*	o	–	12	o	–	15	16*	–	–	–	–	21	22
Genistæ	1	2	3	4	5	o	–	o	–	o	o	–	o	–	–	–	–	–	–	–	21	
Rectilinea	–	–	–	–	–	–	–	–	–	10	–	o	–	–	15	16*	o	–	–	–	–	22
XYLOCAMPA.																						
Lithorhiza	1	2	3	4	5	–	–	8*	9	10	11*	12	13*	–	–	–	–	–	–	–	21	
CLOANTHA.																						
Perspicillaris	–	2	–	4																		
Solidaginis	–	–	o	–	o	–	–	–	9	10	–	–	o	–	–	o	o					
CALOCAMPA.																						
Vetusta	1	2	3	4	5	–	–	8	9	10	–	12	13*	14	15	16	o	–	–	–	21	22
Exoleta	1	2	3	4	5	6*	7*	8	9	10	11	12	13	14	15	–	–	–	–	–	21	22
XYLINA.																						
Conformis, W. V.	–	–	–	–	–	6																
Rhizolitha	1	2	3	4	5	6*	7*	–	9	10	–	–	–	–	–	–	–	–	–	–	21	22
Semibrunnea	1	2	3	4	5	–	–	–	–	–	–	–	o									
Petrificata	1	2	3	o	5	6*	–	–	–	–	–	12	13*	–	–	–	–	–	–	–	21	
Zinckenii, Tr.	–	–	3																			
CUCULLIA.																						
Verbasci	1	2	3	4	5	–	–	8	–	o	–	–	–	–	–	–	–	–	–	–	21	
Scrophulariæ	1	2	3	o																		
Lychnitis	o	o	3	o																		
Asteris	–	2	3																			
Gnaphalii	–	2	3																			
Absinthii	1	2	–	4*	–	–	–	–	–	–	o											
Chamomillæ	1	2	3	4	5	–	–	o	9	o	–	o	o	14	–	–	–	–	–	20	21	
Umbratica	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15*	16	–	–	19	20	21	22
HELIOTHIS.																						
Marginatus	1	2	3	4	5	–	–	–	9	10	11	o										
Peltiger	1	2	3	–	5	6*	–	–	9	o	o	–	o									
Armiger	1	2	3	o	–	–	–	–	9	o	–	o										
Dipsaceus	–	2	3	4	o	–	–	o	–	10												
ANARTA.																						
Melanopa	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15							
Cordigera	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15							
Myrtilli	o	2	3	4	5	–	7*	8	9	10	11	12	13	14	15	o	–	–	19	20	21	22
HELIODES.																						
Arbuti	1	2	3	4	5	–	–	8	9	10	11	12*	o									
AGROPHILA.																						
Sulphuralis	o	–	3	4																		
ACONTIA.																						
Luctuosa	1	2	3	4	5																	
Solaris, W. V.	–	2																				
ERASTRIA.																						
Venustula	–	2*	3																			
Fuscula	1	2	3	4	5	6	–	8*	–	o	–	–	–	–	–	–	o	–	–	–	–	22
BANKSIA.																						
Argentula	–	–	–	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	22

HYDRELIA.																						
Unca	1*	–	o	4	–	6*	–	–	–	10	–	12	o	–	–	–	–	–	–	–	–	22
MICRA.																						
Ostrina	1	2	–	–	–	o	–	–	–	–	–	–	o									
Parva	1																					
BREPHOS.																						
Parthenias	o	2	3	4	5	–	–	8	–	10	–	12	–	–	15							
Notha	–	2	3	4	5	–	–	–	–	10	–	o										
HABROSTOLA.																						
Urticæ	1	2	3	4	5	–	–	8	9	10	11*	12	13	14	15	16	–	–	–	20	21	
Triplasia	1	2	3	4	5	–	–	8	9	10	–	12	13	14*	–	–	–	–	–	20	21	
PLUSIA.																						
Orichalcea	o	2*	3	o	5																	
Chrysitis	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16*	–	–	19	20	21	22
Bractea	–	–	o	–	5	–	–	–	9	10	–	12	13	o	15	16	–	–	–	–	21	
Festucæ	1*	2	3	4	o	6	–	8*	9	10	11*	12	13	14	15	–	–	–	–	–	–	22
Iota	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	16	–	–	19	20	21	22
V-aureum	1	2	3	4	5	–	–	8	9	10	11	12	13*	14	15	16*	–	–	–	20	21	
Gamma	1	2	3	4	5	–	–	8	9	10	11	12*	13	14	15	–	–	–	19	20	21	22
Interrogationis.	–	–	–	o	5	–	7*	8	9	10	11*	12	o	o	15	16	17*					
GONOPTERA.																						
Libatrix	1	2	3	4	5	–	–	8	9	10	11	12	13	14	15	o	–	–	19	20	21	22
AMPHIPYRA.																						
Pyramidea	1	2	3	4	5	6*	–	8	9*	10	–	–	–	–	–	–	–	–	–	–	–	22
Tragopogonis	1	2	3	4	5	6*	–	8	9	10	11*	12	13*	14	15	–	–	–	19	20	21	22
MANIA.																						
Typica	1	2	3	4	5	–	–	8	9	10	11	12*	13	14	15	16*	–	–	19	20	21	22
Maura	1	2	3	4	5	–	–	8	9	10	11	12*	13	14	15	–	–	–	19	20	21	22
TOXOCAMPA.																						
Pastinum	1	2	3	4	–	–	–	–	–	10												
Craccæ, W. V.	1																					
STILBIA.																						
Anomala	1	2	3	–	–	–	7	8	9*	o	–	12	o	o	15	16	o	–	–	–	21	
CATEPHIA.																						
Alchymista	–	2																				
CATOCALA.																						
Fraxini	–	2	3	4	5	–	–	–	o	10	o	–	–	–	–	–	–	–	–	–	21	
Nupta	1	2	3	4	5	–	–	8	–	–	–	–	–	–	–	–	–	–	–	–	–	22
Promissa	–	2	3	o	o	–	–	o														
Sponsa	–	2	3	o																		
OPHIODES.																						
Lunaris	–	2*	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	22
EUCLIDIA.																						
Mi	1	2	3	4	5	–	7*	8	9	10	11	12	13	14	15	16	–	–	–	20	21	
Glyphica	1	2	3	4	5	–	7	8	9	10	11	12	13	o	15*	16*	–	–	–	20	–	22
PHYTOMETRA.																						
Ænea	1	2	3	4	5	–	7	8*	9	10	11	12	13	14	15	16	–	–	–	–	–	22
Deltoidæ.																						
MADOPA.																						
Salicalis	–	–	3																			
HYPENA.																						
Proboscidalis	1	2	3	4	5	6*	–	8	9	10	–	12*	13*	14	15	–	–	–	19	20	21	22
Rostralis	1	2	3	4	5	–	–	–	o	–	–	–	–	–	–	–	–	–	–	–	21	
Crassalis	1	2*	3	4	5	–	–	8*	–	–	–	–	–	–	–	–	–	–	–	20	21	22
HYPENODES.																						
Albistrigalis	1	2	3	4	5	–	–	–	–	10*												
Costæstrigalis	1	2	3	4	5	–	–	8*	9	10	–	12	–	–	–	o						
SCHRANKIA.																						
Turfosalis	–	2	3*	–	o	–	–	–	9	–	–	12	–	–	–	–	–	–	–	–	21	22

RIVULA.																						
Sericealis	1	2	3	4	5	–	–	8*	9	10	–	12	–	–	–	16*	–	–	–	–	21	
SOPHRONIA.																						
Emortualis	–	2	3																			
HERMINIA.																						
Derivalis.....	–	2	3	o	–	–	–	–	o													
Barbalis	1	2	3	4	5	–	–	8*	–	10	–	–	–	–	–	–	–	–	–	–	21	
Tarsipennalis...	1	2	3	4	5	6*	7*	8	9*	10	–	12*	13*	–	–	–	–	–	–	20		
Grisealis.....	1	2	3	4	5	6*	–	8	9	10	–	12*	–	–	–	–	–	–	–	–	21	
Cribralis.....	–	2	3	4																		
Aventiæ.																						
AVENTIA.																						
Flexula	1*	2	3	4	5	–	–	–	–	10												
Pyralides.																						
ODONTIA																						
Dentalis.....	o	2	3	o																		
PYRALIS.																						
Fimbrialis	–	2	3	4	–	o	–	–	–	o												
Farinalis.....	1	2	3	4	5	6*	–	8	9	10	–	–	13	14*	15*	–	–	–	19	20	21	22
Glaucinalis.....	–	2	3	4	5*	–	–	8*	9*	10												
AGLOSSA.																						
Pinguinalis.....	1	2	3	4	5	6*	–	8*	9	10	–	–	13*	14*	15	16*	–	–	19	20	21	22
Cuprealis	1	o	3	4																		
CLEDEOBIA.																						
Angustalis	1	2	3	4	–	–	–	8*	–	o												
PYRAUSTA.																						
Punicealis	1	2	3	4	5	6*	7*	8*	9*	10	11	12*	13	14*	15*	16*	–	–	–	20	21	
Purpuralis	1	2	3	4	5	6*	–	8	9	10	11*	12	13	–	15*	16*	–	–	–	20	21	22
Ostrinalis	1	2	3	4	5	–	–	8*	9	10	11*	12*	o	14	15*	–	–	–	–	20	21	22
RHODARIA.																						
Sanguinalis.....	–	–	–	o	–	–	–	–	9	–	–	–	o	–	–	–	–	–	–	20		
HERBULA.																						
Cæspitalis	1	2	3	4	o	–	–	8*	9	10*	–	12*	13	14	15*	16*	–	–	–	–	21	
ENNYCHIA.																						
Cingulalis	1	2	3	4	5	–	7	8*	9	–	11*	12	–	14	15	16*						
Anguinalis.....	1	2	3	4	5	–	–	–	–	–	–	12*	–	–	–	–	–	–	–	20		
Octomaculalis..	1*	2	3	4	5	–	7	–	9	10	–	12	–	–	–	16	–	–	–	20	–	22
AGROTERA.																						
Nemoralis	–	2	o																			
ENDOTRICHA.																						
Flammealis	1	2	3	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	20		
DIASEMIA.																						
Literalis	1	2	3	4*	5	–	–	8*														
Ramburialis ...	1	2*																				
NASCIA.																						
Cilialis	–	–	–	4																		
STENIA.																						
Punctalis	1	2	o	4																		
CATACLYSTA.																						
Lemnalis.....	1	2	3	4	5	6	–	8*	9	o	–	–	13	–	–	–	–	–	–	–	21	22
PARAPONYX.																						
Stratiotalis.....	1	2	3	4	5	–	–	8	9	10	–	–	–	–	–	–	–	–	–	–	21	
HYDROCAMPA.																						
Nymphæalis ...	1	2	3	4	5	–	–	8*	9	10	11*	12*	13*	14	15	–	–	–	–	–	21	22
Stagnalis	1	2	3	4	5	–	–	8*	9	o	–	–	13*	–	–	–	–	–	–	–	21	22
BOTYS.																						
Lupulinalis	–	2	–	–	–	–	–	–	9*													
Pandalis	1*	2	3	4*	5	–	–	–	9*	10	–	12*	–	–	–	–	–	–	–	20		

Flavalis	1*	2	3	o	–	o																	
Hyalinalis	–	2	3	4*	5																		
Verticalis	1	2	3	4	5	6	–	8*	9*	10	–	–	–	–	–	–	–	–	–	–	21		
Lanceolalis	1	2	3	4	5	6*																	
Fuscalis	1	2	3	4	5	–	–	8*	9	o	–	12*	13*	14	15	16*	–	–	19	20	21	22	
Terrealis	1	–	o	–	–	–	7	–	9*	–	–	12*											
Asinalis	1	2	–	o	5	–	7*																
Urticalis	1	2	3	4	5	6*	o	8	9	10	11*	–	13*	14*	15*	–	–	–	19	20	21	22	
EBULEA.																							
Crocealis	1	2	3	4	5	6*	–	8*	9	10	11*	12*	–	–	–	o	–	–	–	20	21		
Verbascalis	–	2	3	4	–	–	–	–	o														
Sambucalis	1	2	3	4	5	–	–	8*	9	10	–	–	–	–	–	–	–	–	–	–	21		
Catalaunalis, Dp.	–	–	3*																				
PIONEA.																							
Forficalis	1	2	3	4	5	6*	–	8	9	10	11*	12*	13*	14	15	16*	–	–	19	20	21	22	
Margaritalis	o	2	3	4																			
Stramentalis	–	2	3	4	5	–	–	–	–	–	–	–	–	–	–	–	–	–	19	–	–	22	
SPILODES.																							
Sticticalis	1	2	3	4	o	–	–	8	9	10	–	–	–	–	–	–	–	–	–	–	21		
Palealis	o	2	3	o																			
Cinctalis	1	2	3	4	5																		
MARGARODES.																							
Unionalis, Hüb.	1																						
SCOPULA.																							
Alpinalis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15	16							
Lutealis	1	2	3	4	5	–	–	8	9	10	11*	12	13	14	15*	–	–	–	19	20	21	22	
Olivalis	1	2	3	4	5	–	–	8	9	10	o	–	–	–	–	–	–	–	19	20	21	22	
Prunalis	1	2	3	4	5	–	–	8	9	10	–	–	13*	–	–	16*	–	–	19	20	21	22	
Ferrugalis	1	2	3	4*	5	–	–	–	9	–	–	12	o	–	–	–	–	–	–	–	21		
Decrepitalis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15	16	17						
MECYNA.																							
Polygonalis	–	2																					
STENOPTERYX.																							
Hybridalis	1	2	3	4	5	–	–	8*	9	10*	11*	–	13*	14	–	16	–	–	19	20	21		
SCOPARIA.																							
Ambigualis	1	2	3	o	5	o	–	–	9	o	–	–	13	14*	15	o	–	–	–	–	21		
Ulmella, Dale	–	2*																					
Ingratella, Zel.	–	–	3*																				
Basistrigalis, Ks.	–	2*	3*	–	5																		
Cembralis	1	2	3	4	5	–	–	–	9	10	–	–	13*	14*	–	–	–	–	–	–	21		
Pyralalis	1	2	3	o	o	o	–	–	9	o	–	–	13*	14*	15	–	–	–	–	–	21		
Muralis	1	–	3	o	o	–	–	–	9	10	o	12	–	14	15	o	–	–	19				
Lineolalis	1	2	3*	4*	o	–	–	–	–	10*	o	o	o	o	15	–	–	–	–	20	21		
Mercurialis	1	2	3	–	o	–	–	–	9*	o	–	o	–	–	o	–	–	–	–	–	21		
Cratægalis	1	2	3	o	5	o	–	–	–	10*	–	12*	o	14	–	–	–	–	–	–	21		
Resinalis	–	2	3	–	o	–	–	–	o	–	–	o	–	–	–	–	–	–	–	–	21		
Phæoleucalis	–	2																					
Truncicolalis	1*	2	3	–	o	–	–	–	9	10*	–	o											
Coarctalis	1	2	3	–	5	6*	–	–	9	10	–	12*	o	14	–	–	–	–	–	–	21		
Atomalis	–	–	–	o	–	–	o	–	–	–	–	–	–	–	15								
Gracilalis	–	–	–	–	–	–	–	–	–	–	–	o	–	–	15								
Paralis	–	–	–	o	–	–	–	–	–	–	–	–	–	–	15								
Pallidulalis	o	2	3	4	o	–	–	–	9	10	–	–	–	14	o								
Crambi.																							
PLATYTES.																							
Cerussellus	1	2	3	4	–	–	–	–	9*														
CRAMBUS.																							
Falsellus	1	2	3	4	5	6*	7*	–	9	–	–	12	–	14	15*								
Pratellus	1	2	3	4	5	–	–	–	9	10*	11*	–	13*	14*	15*	–	–	–	–	–	21		
Dumetellus	1*	2	3	o	5	–	–	–	9	o	–	–	–	14									

Ericellus	–	–	–	–	–	–	–	–	–	–	–	–	–	–	15							
Adipellus	–	2	–	o	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	22
Hamellus	1*	2	3	o	–	–	–	–	9*	–	–	–	–	–	–	–	–	–	–	–	–	22
Pascuellus	1	2	3	4	5	–	–	–	9	10	–	–	13*	o	–	16*	–	–	–	–	21	
Uliginosellus	–	2	3																			
Furcatellus	–	–	–	–	–	–	7*	–	–	–	–	12	–	–	15	o						
Margaritellus	1*	–	3	4	5	–	7*	–	9	10	–	12	13*	14*	15	16	–	–	–	20		
Pinetellus	1	2	3	4	5	o	o	–	9	–	–	12	–	14*	15	16*	–	–	–	–	21	22
Latistriellus	1*	2	3	4*	–	–	–	–	9													
Perlellus	1	2	3	4	5	6*	–	–	9	o	–	12*	–	–	–	–	–	–	–	20	21	
Warringtonellus	o	2	o	–	–	–	–	–	9	–	–	12										
Selasellus	1	2	3	4	o	–	–	–	9	10*	–	12	–	–	–	–	–	–	19			
Tristellus	1	2	3	4	5	–	–	–	9	10	11*	–	13*	14*	15	–	–	–	–	–	21	
Pedriolellus	–	–	–	4																		
Inquinatellus	1	2	3	o	5	6*	–	–	o	10	–	12*	o	–	15							
Contaminellus	1*	2*	3	–	o	–	–	–	9	–	–	12*	–	14								
Genieulellus	1	2	3	o	5	6*	7*	–	9	–	–	12	13*	–	15	16*	–	–	–	–	21	
Culmellus	1	2	3	4	5	–	–	–	9	10	11*	12*	13*	14*	15*	–	–	–	–	–	21	
Chrysonychellus	1*	2	3	–	5																	
Rorellus	–	2*	3*																			
Cassentiniellus	1*	2																				
Hortuellus	1*	2	3	4	5	6*	–	–	9	10	11*	–	13*	14*	15	–	–	–	–	–	21	
Paludellus	1*	–	–	4																		
Ocellea, Haw.	–	–	–	–	–	6	–	–	–	–	–	–	o									
CHILO.																						
Cicatricellus	–	–	3																			
Phragmitellus	–	2	3	4	5*	–	–	–	9	10*												
SCHŒNOBIUS.																						
Forficellus	1*	2	3	4	5	–	–	–	9	10	–	–	–	–	–	–	–	–	–	–	–	22
Mucronellus	–	o	–	4	5*	–	–	–	o	–	–	–	o									
Gigantellus	–	–	–	4																		
ANERASTIA.																						
Lotella	1*	2	o	4	–	–	–	–	9	10*	–	12*	–	–	–	–	–	–	–	–	21	
Farrella	–	–	3	4																		
ILITHYIA.																						
Carnella	1	2	3																			
MYELOPHILA.																						
Cribrella	–	2	3	4*	5																	
HOMŒOSOMA.																						
Sinuella	1	2	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	21	
Nimbella	1	2	3*	–	o	–	–	–	9	10*	–	o	–	–	–	–	–	–	–	–	21	
Nebulella	1	2	3	4*	o	–	–	–	–	10*	–	–	–	–	–	–	–	–	–	–	21	
Eluviella	1*	2	3	–	o	–	7	–	–	–	–	o	–	–	–	–	–	–	–	–	21	
NYCTEGRETES.																						
Achatinella	–	–	3	4																		
EPHESTIA.																						
Elutella	1	2	3	o	5	–	–	–	9	10	–	–	–	–	–	–	–	–	–	–	21	
Ficella	–	–	3	–	–	–	–	–	–	–	–	–	o									
Semirufella	–	2	3	–	5*																	
Pinguedinella	–	2	3	4	5	–	–	–	9	10												
Cinerosella, Zel. [*Artemisiella.*]	–	2*	–	–	5*																	
CRYPTOBLABES.																						
Bistrigella	1	2	3	4	5	–	–	8*	9													
PLODIA.																						
Interpunctella	–	–	3*	–	–	–	–	–	9*													
NEPHOPTERYX.																						
Angustella	1	–	–	–	5*																	
GYMNANCYLA.																						
Canella	–	2*	3*																			

PHYCIS.																						
Betuletella	–	–	3	–	5	–	–	–	9	o												
Carbonariella ..	1	2	3	–	5*	–	–	–	9	10	–	12	–	o	15*	16*	–	–	–	20	21	22
Adelphella	–	–	3	o	5*																	
Dilutella.....	1	2	3	4*	o	6*	–	–	–	–	–	–	o	14	–	–	–	–	–	20	21	
Subornatella,Dp.	–	–	–	–	–	–	–	–	–	–	–	12	–	–	–	–	–	–	–	–	21	
Ornatella	–	2	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	21	
Abietella.....	1*	2	3	–	–	–	–	–	9*	10	o	12	o	–	15							
Roborella	1	2	3	4	5	–	–	–	–	10*												
PEMPELIA.																						
Palumbella	o	2	3	o	o	–	–	–	9	10	–	o										
RHODOPHÆA.																						
Formosella.....	o	–	3																			
Consociella.....	1	2	3	–	5	–	–	–	9	–	–	o										
Advenella	–	2	3	–	5																	
Marmorella ...	–	2	3	–	5	–	–	–	–	–	–	o										
Suavella	–	2*	3*	–	5*																	
Tumidella	1*	2	3	–	5																	
Rubrotibiella...	–	–	3	–	–	–	–	–	o													
ONCOCERA.																						
Ahenella.....	1	2	3	–	5	–	–	–	–	10	–	12	–	–	o							
MELIA.																						
Sociella	1	2	3	4	5	6*	–	–	9	10*	11*	12*	–	14	15	16*	–	–	–	–	21	
Anella.....	–	–	3																			
GALLERIA.																						
Cerella	–	2*	3	4	–	o	–	–	–	–	–	–	–	–	–	–	–	–	o	–	21	o
MELIPHORA.																						
Alveariella	–	o	3	4*	–	–	–	–	9*	10	–	–	o	–	o	–	–	–	o	20	21	22

Note.—The species referred to, at p. 429, as *Acidalia osseata* is the true *osseata*, w. v. *A. interjectaria*, Bdv., is identical with the *osseata* of Doubleday's Catalogue. The two species have been mixed together under the name *osseata*, and there are not any means of determining to which of the two the former records of captures of *osseata* really refer.

Explanation of Table II.

The figures in Table II. refer to the "sub-provinces" previously explained at p. 419; the numbers opposite the name of each species indicating the sub-provinces in which the occurrence of that species is reported on trustworthy evidence.

The blank space or horizontal mark (-), the letter "o," and the asterisk, have the same meaning as regards the sub-provinces as in Table I. as regards the provinces. (*Vide ante*, p. 423.)

The small letters attached to some of the figures refer respectively to the following Entomologists, and indicate that the occurrence of the species in the sub-province to the number of which such a letter is attached, rests on the sole authority of the gentleman to whom such letter refers :—

a.—Mr. C. G. Barrett.
b.—Mr. Edwin Birchall.
c.—Rev. H. Harpur-Crewe.
d.—Mr. J. C. Dale.
e.—Mr. Henry Doubleday.
f.—Rev. George Gordon.
g.—Rev. Joseph Greene.
h.—Rev. E. Horton, except in sub-province 14, where it generally indicates the joint authority of this gentleman and Mr. Abraham Edmunds.
k.—Dr. Knaggs.
l.—Mr. William Lenonn.
m.—Mr. G. F. Mathew.
n.—Mr. Charles Fenn.
o.—Mr. A. G. More.
r.—Mr. G. R. Crotch.
s.—Mr. H. T. Stainton, in the "Manual" and elsewhere.
w.—Mr. J. Jenner Weir.
z.—Mr. H. Jenner Fust; in sub-provinces 12, 18, and 29, jointly with Mr. R. S. Scholfield.

These Entomologists were in general selected either from the intrinsic weight which their authority would carry, or from local Lists having been published by them.

It was thought unnecessary to employ these letters of reference in Table I., which contains more general statistics; moreover, by comparison with Table II., the name of the single authority may be ascertained where a letter of reference has been employed.

The localities Halton and Lower Guiting in Stainton's "Manual," resting on the authority of the Rev. Joseph Greene, they have been referred to him and not to Mr. Stainton, in the case of either being the sole recorded locality in its sub-province.

TABLE II.

Sub-provincial Distribution.

Diurni.																				
Papilio.																				
Machaon	–	–	o	o	o	o	7	o	–	o	11	12								
Leucophasia.																				
Sinapis	1*	2	3	4	5	6	7	8	9	10	–	12	13*s*	14	–	–	o	–	–	20
Pieris.																				
Cratægi	o	2*s*	3	4	5	6	7	–	9	–	–	12	13	14	–	16	o			
Brassicæ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17*	18	19	20
Rapæ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17*	18*	19*	20
Napi	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	19*	20
Daplidice	–	o	3	–	–	6	7	o	o	–	–	12	–	o						
Anthocharis.																				
Cardamines	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	19*	20
Gonopteryx.																				
Rhamni	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	19*	20
Colias.																				
Edusa	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Hyale	o	2	–	4	5	6	7	8	o	10	11	–	13	14	–	–	o	o	19	20
Argynnis.																				
Paphia	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	17	18	o	20
Aglaia	1	2	3	4	5	6	7	–	9	10	11*	12	13	14	15	16*	17*	18	o	20
Adippe	o	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	o	18*	o	20
Lathonia	–	2	–	4	5	6	7	o	–	10	11	12	o	o						
Euphrosyne	o	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	17	18*	19	20
Selene	1	2	3*r*	4	5	6	7	8	9	10	o	12	13	14	15	–	–	18	o	20
Melitæa.																				
Artemis	–	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Cinxia	–	–	–	–	5	–	7	–	–	10*s*	–	12	–	–	–	–	–	–	o	
Athalia	1	2	–	–	–	6	7	8	9*g*	10	–	o	13*g*	–	15	–	–	–	–	–
Vanessa.																				
C-album	–	–	3	4	5	o	7	8	9	10	–	12	13	14	15	16	–	18	19	20
Urticæ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	17*d*	o	19*	20
Polychloros	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	o	18	19	20
Antiopa	o	2	3	4	5	6	7	8	–	10	11	12	13	14	o	–	–	o	19	20
Io	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	18	19	20
Atalanta	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	–	o	19	20
Cardui	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	17*	18	19	20
Limenitis.																				
Sibylla	–	–	–	4	5	o	7	8	9	10	o	–	–	o						
Apatura.																				
Iris	–	2	–	4	5	6	7	8	9	10	11	12	o	o	–	–	o	–	19	20
Arge.																				
Galatea	o	2	3*r*	4	5	6	7	8	9	o	11	12	13	14	–	16	17	–	o	20
Erebia.																				
Epiphron, Kn. [*Cassiope.*]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Medea, w. v. [*Blandina.*]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Satyrus.																				
Egeria	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	19*	20
Megæra	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	18*z*	19*	20
Semele	1	2	3	4	5	6	7	o	9	10	11*	o	13	14	15	16	–	18	19*	20
Ianira	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	o	19*	20
Tithonus	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	19*	20
Hyperanthus	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	18	19*	20

TABLE II.

Sub-provincial Distribution.

Diurni.																		
Papilio.																		
Machaon																		
Leucophasia.																		
Sinapis	o	–	o	–	25													
Pieris.																		
Cratægi																		
Brassicæ	21	22	23	24	25	26*l*	27	28	29	30*	31	32*	–	34*z*	–	36*z*		
Rapæ	21	22	23	24	25*	26*l*	27	28	29	30*	31	–	–	–	–	–	37 *m*	
Napi	21	22	23	24	25*	26*l*	27	28	29	30*	31	32	–	34*z*				
Daplidice																		
Anthocharis.																		
Cardamines	21	22	23	24	25	26*l*	27	28	29	30*	31							
Gonopteryx.																		
Rhamni	21	22	23	24	25													
Colias.																		
Edusa.....	21	22	23	24	25	26	27	–	o	–	–	o						
Hyale.....	21*s*	22																
Argynnis.																		
Paphia	21	22	23	24	25*													
Aglaia.....	21	22	23	24	25	–	27	28	29	30*	31	32	–	–	o			
Adippe	21*	22	o	–	25	26*l*	–	–	–	–	–	o						
Lathonia																		
Euphrosyne	21	22	23	24	25	26*l*	27	o	29	–	31	32	–	o	o			
Selene.....	21	22	23	24	25	26*l*	27	28	29	30*	31	32						
Melitæa.																		
Artemis.....	21	22	23	24	25	26*l*	27	o	29	30*	31	32						
Cinxia																		
Athalia	o																	
Vanessa.																		
C-album.....	21	22	23	24	25													
Urticæ	21	22	23	24	25	26*l*	27	28	29	30	31	32*	33*d*					
Polychloros	21	22	23	o	o													
Antiopa	21	22	23	24	25	o	27	28										
Io.....	21	22	23	24	25	26	27	28	29	o	31*f*	32						
Atalanta	21	22	23	24	25*	26	27	28	29	30*	31	32*						
Cardui	21	22	23	24	25*	26*l*	27	28	29	30	o	32						
Limenitis.																		
Sibylla																		
Apatura.																		
Iris																		
Arge.																		
Galatea	–	22	23															
Erebia.																		
Epiphron, Kn... [*Cassiope.*]	–	–	–	–	25	–	–	–	29	–	–	o						
Medea, w. v. ... [*Blandina.*]	–	–	23	24	25	26	o	o	29	30*	31*f*	32						
Satyrus.																		
Egeria	21	22	23	24	25*	–	27*	28	29	30*	–	32						
Megæra.....	21	22	23	24	25	26*l*	27	28	29	30*	–	32*						
Semele	21	22	23	24	25	26*l*	27	28	29	30*	31	32	–	–	o			
Ianira.....	21	22	23	24	25*	26*l*	27	28	29	30*	31	32						
Tithonus	21	22	23	24	25													
Hyperanthus....	–	22	23	24	25	26*l*	27	28	29	30	–	32*	33*f*					

CHORTOBIUS.																				
Davus	–	–	–	–	–	–	–	–	–	–	o	–	–	–	o	–	–	18*z*	–	–
Pamphilus	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	19*	20
THECLA.																				
Rubi	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	17*	18*z*	19*	20
Quercus	–	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	18	19*	20
W-album	–	2*m*	3*r*	o	o	6*o*	7	8*e*	o	10	o	12	13	14*	15	–	–	–	–	20
Pruni	–	–	–	–	–	–	–	–	–	10*g*	–	12	–	o						
Betulæ	–	2	o	4	5	6	7	8	9	10	–	12	o	14	–	16	o	18	–	o
POLYOMMATUS.																				
Hippothoe	–	–	–	–	–	–	–	–	–	–	o	o								
Phlœas	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	18*z*	19*	20
LYCÆNA.																				
Ægon	1	2	3	4	5	6	7	8	9	10	11	–	13	–	–	–	–	o	o	–
Agestis	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	18*	o	20
Alexis	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	18	19*	20
Adonis	–	2	–	4	5	6	7	–	9	–	–	–	o							
Corydon	–	–	3	4	5	6	7	8	9	10	o	12	13	–	–	–	–	–	–	–
Acis	–	–	o	4	o	o	–	–	–	–	–	12	13	14	–	–	–	–	o	–
Alsus	–	2	3	4	5	6	7	–	9	–	o	12	13	14	15	16*	–	–	–	20
Argiolus	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	–	20
Arion	–	2	3	4*d*	–	–	o	–	–	–	–	12	o							
Bætica, Lin.	–	–	–	–	–	6*														
NEMEOBIUS.																				
Lucina	–	2	3	4	5	6	7	8	9	10	–	12	13	o	–	–	o	–	–	–
SYRICHTHUS.																				
Alveolus	1*	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	19*	20
THANAOS.																				
Tages	–	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	18	19*	20
HESPERIA.																				
Paniscus	–	–	–	–	5	–	–	–	9	–	–	12	–	–	o	–	–	–	o	o
Sylvanus	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	18	19*	20
Comma	–	2	o	4	5*s*	6	7	–	9	–	11	12	–	–	–	–	–	o	–	–
Linea	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	17*	–	19*	20
Actæon	–	2	o	4	–	–	–	–	–	–	–	–	–	–	o					
Nocturni.																				
SMERINTHUS.																				
Ocellatus	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	–	18*	–	20
Populi	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	17*	18	–	20
Tiliæ	–	2	3	4	5	6	7	8	9	10	11	12	13	14	15*	–	–	–	–	20
ACHERONTIA.																				
Atropos	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	–	o	–	20
SPHINX.																				
Convolvuli	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	o	–	–	–	20
Ligustri	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	o	20
DEILEPHILA.																				
Euphorbiæ	–	o	o	–	o	–	o	–	–	–	–	–	–	–	–	–	–	–	–	–
Galii	–	2	3	4	5	6	7	8	–	10	11	o	o	14	–	–	–	–	–	20
Lineata	o	2	–	4	5	6	7	8	–	–	o	o	o	14	–	–	–	–	–	o
CHŒROCAMPA.																				
Celerio	–	2	3*	4	5	6	7	8	o	10	o	12	o	14	o	–	–	o	o	20
Porcellus	o	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	o	–	–	o	–	20
Elpenor	1*s*	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	–	18	19*	20
Nerii	–	2	–	–	5	6	7	–	–	–	o									
MACROGLOSSA.																				
Stellatarum	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	17*	18	–	20
Fuciformis	o	2	–	4	5	6	7	8	9	10	11	o	–	–	–	–	–	–	–	20*
Bombyliformis	o	2	–	4	5	6	7	8	9	10	11	12	o	14	–	16	–	–	–	o

CHORTOBIUS.																			
Davus	21	o	23	24	25	26 *l*	27	28	29	30*	31	32	33	34*z*	o	–	37	38	
Pamphilus	21	22	23	24	25	26 *l*	27	28	29	30*	31	32							
THECLA.																			
Rubi	21	22	23	–	25	26	27	o	29	30*	31	32							
Quercus	21	22	23	24	25	26	27*	o	29	–	–	32							
W-album	–	22	23																
Pruni																			
Betulæ	o	–	–	–	25														
POLYOMMATUS.																			
Hippothoe																			
Phlœas	21	22	23	24	25	26 *l*	27	28	29	30*	31	32*							
LYCÆNA.																			
Ægon	21	22	23	–	25*	–	–	o	o										
Agestis	21	22	23	24	25	26	27	28	29	30									
Alexis	21	22	23	24	25	26 *l*	27	28	29	30*	31	32*	–	34*z*	–	36*z*			
Adonis																			
Corydon	–	–	–	–	25														
Acis	–	–	o	–	o														
Alsus	21*	22	23	24	25	26 *l*	27	28	29	30	31	32							
Argiolus	21	22	23	24	25														
Arion																			
Bætica, Lin.																			
NEMEOBIUS.																			
Lucina	–	–	23	–	25	26 *l*													
SYRICHTHUS.																			
Alveolus	–	22	23	o	25*	26 *l*	27												
THANAOS.																			
Tages	21	22	23	24	25	26 *l*	27	–	–	o	31	–	–	o					
HESPERIA.																			
Paniscus																			
Sylvanus	21	22	23	24	25	26 *l*	–	28											
Comma	–	22	–	–	–	–	–	–	o										
Linea	21*b*	22	23	–	25*	–	–	o											
Actæon																			

Nocturni.

SMERINTHUS.																			
Ocellatus	21	22	23	o	25	26 *l*													
Populi	21	22	23	24	25	26	27	28	29	30	31	32*							
Tiliæ	o	o	o	–	–	–	o	o											
ACHERONTIA.																			
Atropos	21	22	23	24	25	o	27	28	29	30	31	32*	33*f*	–	35*f*	–	–	38*	
SPHINX.																			
Convolvuli	21	22	23	24	25	26 *l*	27	28	29	30	31	32							
Ligustri	–	22	23	–	o	–	o	o	o	o									
DEILEPHILIA.																			
Euphorbiæ	–	o																	
Galii	21	o	23	24	25	–	o	o	o										
Lineata ♀	21	–	23	o	25	–	o	–	o										
CHŒROCAMPA.																			
Celerio	21	22	23	24	25	o	o	28	o										
Porcellus	21	22	o	24	25	–	27	28	29	o	–	o							
Elpenor	21	22	23	24	25	26 *l*	–	28	o										
Nerii																			
MACROGLOSSA.																			
Stellatarum	21	22	23	24	25	26 *l*	27	28	29*	o	31	32*							
Fuciformis	21*b*	22	o	o	–	–	o	o											
Bombyliformis	21	22	23	24	25	26 *l*	27	–	29	30*	o	32	–	–	o				

SESIA.																				
Myopiformis ...	–	2	–	–	–	6*s*	7	8	–	10	–	–	13*s*	o						
Culiciformis ...	–	–	–	–	5	6	7	8	–	10*	–	–	–	o	o	o	–	–	–	20*c*
Formiciformis .	–	o	–	–	–	–	7	8	–	o	–	12*s*	13	–	–	–	–	–	–	20
Chrysidiformis.	–	–	–	–	o	–	7	8*k*	–	–	–	–	–	–	–	–	–	–	–	–
Ichneumoniformis	1	2	3*r*	4	5	6*	7	8*e*	–	–	–	–	o	–	–	–	–	–	–	–
Cynipiformis ...	–	2	–	o	o	o	7	8	9	o	–	12*d*	o	14	–	–	–	–	–	o
Philanthiformis, Lasp.	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tipuliformis ...	o	2	3*r*	4	5	6	7	8	9	10	11	–	13	14	15	–	–	–	–	20
Andreniformis .	–	–	–	1*	–	–	7													
Scoliiformis ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	18	–	–
Sphegiformis ...	–	–	–	–	–	6	–	–	–	–	o	–	–	–	15	–	–	o	–	20*c*
Asiliformis.....	–	–	–	–	o	–	o	8*e*	–	–	–	12*d*								
Bombiciformis .	–	2	–	4*d*	5	6	7	8	9	10	o	12	13	14	15	–	–	18*	–	20
Apiformis	o	2	–	o	5	–	7	8	9	10	11	12	13*g*	14	15	–	–	–	–	o
MACROGASTER.																				
Arundinis	–	–	–	–	–	–	–	–	–	–	11	12								
ZENZERA.																				
Æsculi	–	2	–	4	5	6	7	8	9	10	11	o	13	14	15	–	–	o	–	o
COSSUS.																				
Ligniperda.....	1*	2	3	4	5	6	7	8	9	10	11	12	–	14	15	–	–	–	–	20
HEPIALUS.																				
Hectus	o	2	3*r*	4*d*	5	6	7	8	9	10	11	12*h*	13	14	15	16*h*	–	–	–	20
Lupulinus	1	2	3*r*	4	5	6	7	8	9	10	11	12*z*	13	14	15	–	–	–	–	20
Sylvanus.....	1	2	3	4	5	6	7	8	9	10	11	12*s*	13	14	15	–	–	18*b*	–	20
Velleda	–	o	–	–	5	–	7	o	o	–	–	–	13*g*	o	15	16*	–	18*z*	–	20*c*
Humuli	1	2	3*r*	4	5	6	7	8	9	10	11	–	13*g*	14	15	–	–	18*z*	–	20
LIMACODES.																				
Asellus	–	–	–	–	5	6	–	8	o											
Testudo	–	–	–	–	5	6	7	o	–	–	o	–	–	14						
PROCRIS.																				
Statices	–	2	3	4	5	6	7	8	9	10	11*	12	13	14	15	16*	–	18	–	20
Geryon, Hüb....	–	–	–	–	–	6	7	–	–	–	–	–	13*	14	–	–	–	–	–	o
Globulariæ.....	–	–	–	1*d*	–	6	7	–	–	–	–	–	13	o						
ZYGÆNA.																				
Minos																				
Nubigena, Mann	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Trifolii.....	–	2	3*r*	4	5	6	7	8	9	10	11	12*	13	14	o	–	–	18	–	o
Loniceræ.....	o	2	3	4	5	6	7	–	9	10*	11	–	13	14	15	–	–	–	o	20
Filipendulæ ...	1	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	–	18	–	20
NACLIA.																				
Ancilla, Lin. ...	–	–	–	–	–	6*														
NOLA.																				
Cucullatella ...	–	2*m*	3*r*	4*d*	5*o*	6	7	8	9	10	11	12*	13	14	15	–	–	–	–	20
Confusalis, H.-S. [*Cristulalis.*]	–	o	3*r*	4*d*	5	6	7	8	9	10	11*	12*s*	–	14*h*	15*	16*	–	–	–	–
Strigula	–	–	–	–	5	6	7	o	9	10	11	–	13*s*	–	–	–	–	–	–	20*c*
Centonalis	–	–	–	–	5															
Albulalis, W. V...	–	–	–	–	–	–	7													
NUDARIA.																				
Senex	–	o	–	–	–	o	7	8	–	10	11	12	–	–	o	–	–	–	–	–
Mundana.....	o	2	–	4	5	6	7	8	9	10	11	12	13*g*	14	15*	–	–	–	19*	20
SETINA.																				
Irrorella	o	2	–	–	5	6	7	–	9*g*	10*	o	–	13*s*	–	–	–	–	18*z*	–	–
CALLIGENIA.																				
Miniata	1*	2	3*r*	4	5	6	7	8	9	10	11	12	13*s*	14	o	–	–	–	o	o
LITHOSIA.																				
Mesomella	–	2	–	4	5	6	7	8	9	10	11	12*s*	o	14	15*	–	–	o	o	o

SESIA.																			
Myopiformis																			
Culiciformis	21	22	o	–	o	–	o	–	–	–	–	o							
Formiciformis...	–	o	–	o															
Chrysidiformis .	o																		
Ichneumoniformis.	–	22																	
Cynipiformis....	–	o																	
Philanthiformis Lasp	–	–	–	–	25														
Tipuliformis	21	22	23	24	–	–	27												
Andreniformis..																			
Scoliiformis	–	–	–	–	–	–	–	–	29*										
Sphegiformis ...	21	o	o																
Asiliformis																			
Bembiciformis.	21	22	23	24	25	–	27	o	o										
Apiformis	–	–	–	o	–	–	o												
MACROGASTER.																			
Arundinis																			
ZENZERA.																			
Æsculi	–	o	o																
COSSUS.																			
Ligniperda	21	22	23	o	o	26*l*	–	–	o	–	31*f*								
HEPIALUS.																			
Hectus.....	21	22	23	24	25	26	27	–	29	–	31*f*	32	33*f*	–	35*f*				
Lupulinus	21	22	23	24	25	26	27	28	29	30*	31*f*								
Sylvanus.....	21	22	23	24	25	26*l*	27	28	29	–	–	32*	33*f*						
Velleda	21	22	23	24	25	26*l*	27	28	29	30	31*f*	32	33*f*	–	35*f*				
Humuli	21	22	23	24	25*	26*l*	27	28	29*	30*	31*f*	–	–	–	–	–	–	38*	
LIMACODES.																			
Asellus																			
Testudo																			
PROCRIS.																			
Statices	21	22	23	24	25	26*l*	–	–	–	–	–	32							
Geryon, Hüb....	21*	22	–	24	o														
Globulariæ.....																			
ZYGÆNA.																			
Minos																			
Nubigena,Mann	–	–	–	–	–	–	–	–	–	–	–	32							
Trifolii	21	o	o	o	–	–	o	–	–	–	–	o							
Loniceræ	21	22	23	–	25*d*	–	–	–	–	–	–	o							
Filipendulæ ...	21	22	23	24	25	26*l*	27	28	29	30	31	32							
NACLIA.																			
Ancilla, Lin. ...																			
NOLA.																			
Cucullatella. ...	21	22	23	24*s*	25*														
Confusalis, H.-S. [*Cristulalis.*]	21	22	–	24*	25	–	o												
Strigula	o	22*s*	–	24*s*	o														
Centonalis.....																			
Albulalis, W. V.																			
NUDARIA.																			
Senex	–	22																	
Mundana	21	22	23	–	25	–	27	28	29	–	–	32*							
SETINA.																			
Irrorella.....	–	o	o	–	o	–	–	–	–	–	–	32							
CALLIGENIA.																			
Miniata	–	22	23																
LITHOSIA.																			
Mesomella	21	22	–	–	25	–	–	–	–	–	–	o							

Muscerda	–	–	–	–	–	–	–	–	–	–	11									
Unita, Esp.....	–	–	–	–	5	6	7	8	9	10	–	12*h*	–	14	–	–	–	–	–	o
[*Aureola.*]																				
Pygmæola	–	–	–	–	–	–	7													
Caniola, Hüb....	–	2																		
Complana	1	2	3	4	5	6	7	8	9	10	11	–	13*s*	14*h*	o	–	–	–	–	–
Molybdeola, Gn.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Luridcola, Tr...	1	2	3*r*	4	5	6	7	8	9	10	11	–	13	o	15	–	–	–	–	20
[*Complanula.*]																				
Griseola	–	2	–	4	5	6	7	8	9	10	11	12	13	14*h*	–	–	–	–	–	–
Straminea ...	–	o	–	4	5	o	7	o	9	10	11	12	13	14	–	–	–	–	–	o
Deplana, Esp...	–	–	–	–	5	–	7	–	9*	o	o	–	o	–	–	–	–	–	–	–
[*Helveola.*]																				
Quadra	–	2	–	4	5	6	7	8	9	10	o	–	o	14*h*	–	–	–	–	–	–
Rubricollis ...	–	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	–	–	–	–	–	20
EULEPIA.																				
Grammica	–	–	–	–	–	–	–	o	9*s*	–	o	–	–	–	–	–	–	18		
Cribrum	–	–	–	4	5	–	–	–	–	–	o									
DEIOPEIA.																				
Pulchella	–	–	o	o	5	6	7*	8	–	10	–	–	–	–	–	–	–	–	–	–
EUCHELIA.																				
Jacobææ.....	1	2	3	4	5	6	7	8	9	10	11	12	13*z*	14	15	–	–	18	19	20
CALLIMORPHA.																				
Dominula	–	2	–	4	5	6	7	–	–	10	11*	12	13	–	–	–	o	18*z*	–	20*g*
EUTHEMONIA.																				
Russula.....	o	2	3	4	5	6	7	8	9	10	11	o	–	o	o	16*h*	–	18*z*	19*	20
CHELONIA.																				
Plantaginis.....	–	2	3*r*	4*d*	5	6	7	–	9	10	o	12	13	14	15	16*	–	18	19*	20
Caia.....	1	2	3	4	5	6	7	8	9	10	11	12*	13*g*	14	15	–	–	18	–	20
Villica.....	1	2	3	4	5	6	7	8	9	10	11	12*	13	14						
ARCTIA.																				
Fuliginosa	1	2	3*r*	4	5	6*	7	8	9	10	11	12	13*	14	15	–	–	–	–	20
Mendica	o	2	3*r*	4	5	6	7	8	9	10	11	12*s*	13	14	15	16*	–	–	–	20*c*
Lubricipeda ...	1	2	3*r*	4	5	6	7	8	9	10	11	12*	13*g*	14	15	–	–	18*z*	19*d*	20
Menthastri.....	1	2	3*r*	4	5	6	7	8	9	10	11	–	13	14	15	–	–	18*z*	–	20
Urticæ	–	–	o	4*d*	o	6	7	8	9	10	11	12	–	o	15*	–	–	–	–	–
LIPARIS.																				
Chrysorrhœa ...	–	2	3*r*	4*d*	5	6	7	8	9	10	o	o	o	–	–	–	–	–	–	o
Auriflua	1*n*	2	3*r*	4	5	6	7	8	9	10	11	12*	13	14	15	–	–	18*	–	20
Salicis	–	2	–	o	5	6	7	8	9	10	11	12*s*	–	14	15	–	–	–	19*	20
Dispar.....	–	–	–	–	–	o	–	o	–	10*s*	o	12*d*	–	14	–	–	–	–	–	–
Monacha	1	2	–	4	5	6	7	8	9	10	11	o	13*g*	14	o	–	–	–	–	20
ORGYIA.																				
Pudibunda.....	1	2	3*r*	4	5	6	7	8	9	10	11	–	13	14	15*	–	–	18	–	20
Fascelina	–	–	–	4	5	–	o	o	9	10	o	12	–	14	–	–	–	–	o	o
Cœnosa	–	–	–	–	–	–	–	–	–	–	o	12								
Gonostigma ...	o	o	–	–	5*	–	7	8	9	–	o	–	–	14	–	–	–	o	–	20*
Antiqua	1	2	3	4	5	6	7	8	9	10	11	–	13	14	15	–	–	–	–	20
DEMAS.																				
Coryli	1	2	–	4	5*s*	6	7	8	9	10	o	–	13	14	–	–	–	–	–	20*c*
TRICHIURA.																				
Cratægi	–	2	o	4	5	6	7	8	9	10	11	o	13	14	15	–	–	–	–	20
PŒCILOCAMPA.																				
Populi	–	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20
ERIOGASTER.																				
Lanestris.....	o	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20
BOMBYX.																				
Neustria	1	2	3*r*	4	5	6	7	8	9	10	11	o	13*g*	14*h*	–	–	–	–	–	20
Castrensis	–	o	–	–	–	–	7	8	–	–	o									
Rubi.....	1	2	3*r*	4	5	6	7	8	9	10	11	–	–	14	15	–	17	18*	19*	20

Muscerda.																			
Unita, Esp.....																			
[*Aureola.*]																			
Pygmæola																			
Caniola, Hüb. ..																			
Complana.	21	o	o	–	25*d*	o	–	–	–	–	o								
Molybdeola, Gn.	21																		
Luridcola, Tr. ..	21*b*	o	o	–	o	–	–	–	o	o									
[*Complanula.*]																			
Griseola.....	21	22*s*	–	o															
Stramineola																			
Deplana, Esp. ..	–	22																	
[*Helveola.*]																			
Quadra	21*s*	22*s*	o																
Rubricollis	21*s*	22	23	–	25	26	–	o	29	–	–	o							
EULEPIA.																			
Grammica																			
Cribrum.....																			
DEIOPEIA.																			
Pulchella	o																		
EUCHELIA.																			
Jacobææ	21	22	23	24	25	–	–	28	29	30	–	32							
CALLIMORPHA.																			
Dominula																			
EUTHEMONIA.																			
Russula	21	22	–	24	25	26	–	o	29	–	–	32	33*f*						
CHELONIA.																			
Plantaginis	21	22	23	24	25	26 *l*	27	28	29	30*	31	32	33*	–	–	–	o	38	
Caia	21	22	23	24	25	26 *l*	27	28	29	30*	31*f*	32*							
Villica																			
ARCTIA.																			
Fuliginosa.....	21	22	23	o	25	26	27	28	29	30*	31	32	–	–	35				
Mendica	21	22	23	24															
Lubricipeda	21	22	23	24	25*	26 *l*	27	o	–	–	–	32*	33*f*						
Menthastri.....	21	22	23	24	25*	26 *l*	27	28	29	–	31*f*								
Urticæ.....	21	–	–	–	–	o	o												
LIPARIS.																			
Chrysorrhœa ...	21	o	o																
Auriflua.....	21	22	23																
Salicis	21	o	o	o	–	–	o												
Dispar	–	–	o																
Monacha	–	22	23																
ORGYIA.																			
Pudibunda	21	22	23	–	25														
Fascelina	21	22	–	o	25*s*	26 *l*	27*	o	29	o	31*f*	32	–	–	o				
Cœnosa																			
Gonostigma	–	22*	23																
Antiqua	21	22	23	24	25*	26	27	28	29	30*	31								
DEMAS.																			
Coryli.....	–	o	23	o	25	26	27	28	29	–	31*f*	32	33*f*	–	o				
TRICHIURA.																			
Cratægi	21*s*	22	23	24	25	–	o	–	–	–	–	–	o						
PŒCILOCAMPA.																			
Populi.....	21	22	23	24*s*	25	26 *l*	27	–	29*	–	o	o							
ERIOGASTER.																			
Lanestris	21	22	23	24	25*s*	26 *l*	o	–	–	–	–	o							
BOMBYX.																			
Neustria	21	22	23																
Castrensis																			
Rubi	21	22	23	24	25	26	27	28	29	30*	31*f*	–	33*f*						

Quercus	1	2	o	4	5	6	7	8	9	10	o	12	13	14	15	–	–	o	–	20
Callunæ	o	2*m*	3*r*	–	–	–	–	–	–	10*g*	–	o	–	–	15*a*	–	–	–	–	–
Trifolii	1	2	–	4	5	6	7	–	o	–	o	–	–	–	o	o	–	–	–	–
ODONESTIS.																				
Potatoria	1*	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	–	18*	19*	20
LASIOCAMPA.																				
Quercifolia ...	–	o	–	4	5	6	7	8	9	10	o	12	–	14	–	–	–	–	–	o
Ilicifolia	–	2*h*	–	–	–	–	–	–	–	–	–	–	–	–	15	–	–	–	–	–
ENDROMIS.																				
Versicolor	–	o	–	o	o	6	7	–	–	10	–	–	13	o	–	–	–	–	–	–
SATURNIA.																				
Carpini	1*	2	3	4	5	6	7	8	9*z*	10	11	–	o	14	15	–	17*	o	o	20
Geometræ.																				
UROPTERYX.																				
Sambucaria ...	–	2	3	4	5	6	7	8	9	10	11	12*	13*g*	14	15	–	17*	18*	–	20
EPIONE.																				
Vespertaria ...	–	–	–	–	5*s*	–	–	–	–	–	o	–	–	–	–	–	–	–	–	–
Apiciaria	–	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20*c*
Advenaria	–	–	3	–	5	6	7	8*	–	–	o	o	o	14	15	–	–	–	–	–
RUMIA.																				
Cratægata	1	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	–	18*z*	–	20
VENILIA.																				
Maculata	1*h*	2	3*r*	4	5	6	7	8	9	10	11	–	13	14*h*	15	–	–	–	–	20
ANGERONA.																				
Prunaria.....	1*h*	2	3	4	5	6	7	8	9	10	11	–	13*s*	14*h*	15*	–	–	–	–	–
METROCAMPA.																				
Margaritaria ..	–	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	17*	18*z*	–	20
ELLOPIA.																				
Fasciaria	–	2	3*r*	4	5	6	7	8*e*	9	10	o	o	13	14*h*	–	–	–	–	o	20
EURYMENE.																				
Dolabraria.....	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12*	13	14	15	–	–	–	–	20
PERICALLIA.																				
Syringaria.....	–	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20
SELENIA.																				
Illunaria	1	2	3*r*	4	5	6	7	8	9	10	11	12*z*	13	14	15	–	–	–	–	20
Lunaria	–	2	o	4	5	6	7	8	9	10	–	–	13	14	15	16*	–	–	–	20*c*
Illustraria	–	2	3	–	5	6	7	8	9	10	o	–	13	14	–	16*	–	–	–	o
ODONTOPERA.																				
Bidentata	1	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13*g*	14	15	–	–	–	–	20
CROCALLIS.																				
Elinguaria.....	–	2	3*r*	4	5	6	7	8	9	10	11	–	13*g*	14	15	–	–	–	–	20
ENNOMOS.																				
Alniaria	–	–	–	–	5	6	7	–	9											
Tiliaria	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14	15*	–	–	–	–	20*c*
Fuscantaria ...	–	2	o	4*d*	5*	6*	7	o	9*g*	10	–	–	13	14	15*	–	–	–	–	20
Erosaria	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	–	14*h*	15	–	–	–	–	20
Angularia	–	2	o	4*d*	5	6	7	8	9	10	o	–	13	14*h*	15	–	–	–	–	20
HIMERA.																				
Pennaria	–	2	3	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15*	–	–	–	–	20
PHIGALIA.																				
Pilosaria	–	2	3	4	5	6	7	8	9	10	11	–	13	14	15	16*	–	–	–	20
NYSSIA.																				
Zonaria	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	18	–	–
Hispidaria	–	–	–	–	5*s*	–	7	8	9	–	–	–	–	–	o	–	–	–	o	20*c*
BISTON.																				
Hirtarius	–	2	3*	4*h*	–	6*	7	8	9	10	11	12	–	14	–	–	–	–	–	o
AMPHIDASYS.																				
Prodromaria ...	–	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	o	20
Betularia.....	–	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20

Quercus.	21	22	23	o	o	o	o	o	o	o	–	o	–	o	o		
Callunæ	21	o	23	o	25*	–	–	–	29	–	31*f*	o	o	o	–	–	o
Trifolii.	21	–	–	o													
ODONESTIS.																	
Potatoria.	21	22	23	24	25*	26*l*	27	o	–	o	–	32	33*f*	–	o		
LASIOCAMPA.																	
Quercifolia. ...																	
Ilicifolia.....	–	–	23														
ENDROMIS.																	
Versicolor.	o	–	–	–	–	–	–	–	29	–	31*f*						
SATURNIA.																	
Carpini.	21	22	23	24	25	26*l*	27	28	29	30	31*f*	32					
Geometræ.																	
UROPTERYX.																	
Sambucaria. ...	21	22	23	24	25	o	–	o									
EPIONE.																	
Vespertaria. ...	–	22															
Apiciaria.	21	22	23	24*s*	25	–	o	–	29	–	31*f*	32*	–	–	35*		
Advenaria.....	–	–	23	–	–	o											
RUMIA.																	
Cratægata	21	22	23	24	25	–	27*	28	29*	–	31*f*	32*z*					
VENILIA.																	
Maculata.	–	22	23	24*s*	25	26*l*	o	–	o	–	–	o					
ANGERONA.																	
Prunaria.	–	22	23														
METROCAMPA.																	
Margaritaria....	21	22	23	24	25	26*l*	27*	28	29	–	31*f*						
ELLOPIA.																	
Fasciaria.	21	22	o	24	25	26*l*	o	28	29	–	31	32*					
EURYMENE.																	
Dolabraria.....	21	22	o	24*s*	25	o											
PERICALLIA.																	
Syringaria.....	21*s*	22	23	–	o												
SELENIA.																	
Illunaria.	21	22	23	24	25	26	27*	28	29*	–	31*f*	o					
Lunaria.	21	22	23	24*s*	25	–	o	o	o	–	o						
Illustraria.....	o	o	–	o	o	–	–	–	o								
ODONTOPERA.																	
Bidentata.	21	22	23	24	25*	26*l*	27*	28	29	–	31*f*						
CROCALLIS.																	
Elinguaria.....	21	22	23	24	25*	26*l*	27	28	29*	–	31*f*	32*					
ENNOMOS.																	
Alniaria.																	
Tiliaria.	21	22	23	24*s*	25*	26	27*	–	29	–	–	32*					
Fuscantaria. ...	21	22	23	24*s*	–	o											
Erosaria.....	21	22	o	–	–	o											
Angularia.	21	22	o	–	–	o	–	–	–	–	–	o					
HIMERA.																	
Pennaria.	21	22	23	24	25	26*l*	27*	28	29*	–	31*f*	32*	33*f*				
PHIGALIA.																	
Pilosaria.	21	22	23	24*s*	25*	–	27	28	29								
NYSSIA.																	
Zonaria.	21	–	–	–	–	–	–	–	–	–	–	–	o				
Hispidaria.....	21	22*s*	23														
BISTON.																	
Hirtarius.	–	22	23														
AMPHIDASYS.																	
Prodromaria....	21	22	23	24	25												
Betularia.	21	22	23	24	25	26	27	28	29	–	31	32*					

HEMEROPHILA.																				
Abruptaria ...	–	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20
CLEORA.																				
Viduaria	–	–	–	–	5	6														
Glabraria	–	2	–	–	5	–	o	–	–	–	–	–	–	–	–	–	–	–	–	–
Lichenaria	1*h*	2	3*r*	4	5	6	7	8	9	10	11	12*s*	13	14*h*	15*	–	–	–	–	–
BOARMIA.																				
Repandaria.....	1	2	3*r*	4	5	6	7	8	9	10	11	–	13*g*	14	15	–	17*	–	–	20
Rhomboidaria .	–	2	3*r*	4	5	6	7	8	9	10	11	o	13	14	15	–	17*	–	–	20
Perfumaria,New.	–	–	–	–	–	–	–	8												
Abietaria	–	–	–	–	5	–	7	–	9	–	–	–	13	14	–	–	–	–	–	–
Cinctaria	–	–	–	4*d*	5	6	–	8*e*	–	–	–	–	–	–	–	–	–	–	–	–
Roboraria	–	–	–	–	5	6*s*	7	8	9	–	o	o	–	14	–	–	–	–	–	–
Consortaria ...	–	–	–	–	5	6	7	8*k*	–	10*c*										
TEPHROSIA.																				
Consonaria ...	–	o	–	–	5	6	7	8	9	10	–	–	o	o	–	–	–	–	–	–
Crepuscularia .	1*h*	2	3	4	5	6	7	–	9	–	o	–	o	14*h*	15	o	–	–	–	20
Biundularia ...	–	2	3*r*	o	5	6	7	8	9	10	o	–	13	14*h*	–	–	–	–	–	–
Extersaria	1*h*	–	–	–	5	6	7	8	9	10	o	o	13	14						
Punctularia ...	–	o	3*r*	4*d*	5	6	7	8	9*c*	10	o	–	13	14*h*	–	–	–	–	–	20*c*
GNOPHOS.																				
Obscurata	1	2	3	4	5	6	7	–	9	–	o	o	13	–	–	–	–	18	–	20
DASYDIA.																				
Obfuscata	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
PSODOS.																				
Trepidaria	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
MNIOPHILA.																				
Cineraria	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	17			
BOLETOBIA.																				
Fuliginaria.....	–	–	–	–	–	–	7*	8	–	–	–	–	–	14*h*						
PSEUDOTERPNA.																				
Cytisaria	1*h*	2	3*r*	4	5	6	7	8	9	10	11	12*s*	13	14*h*	–	–	–	–	o	–
GEOMETRA.																				
Papilionaria ...	1	2	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15	–	17*	18*	19*	20
Smaragdaria ...	–	–	–	–	–	–	7*	8												
NEMORIA.																				
Viridata	–	2	–	4*d*	5	–	o	–	o	–	o	–	–	14	–	–	–	–	–	–
IODES.																				
Vernaria.....	–	2	o	4	5*o*	6	7	8	9	10	o	12*s*	13	14						
Lactearia	1*n*	2	3	4*d*	5	6	7	8	9	10	11	12*s*	13	14	–	–	–	–	–	20
PHORODESMA.																				
Baiularia.....	–	2	–	4*d*	5	6	7	8	9	10	11	12	13	14	15*a*	–	–	–	o	o
HEMITHEA.																				
Thymiaria	–	2	3	4	5	6	7	8	9	10	11	12	13	14*h*	–	–	17*	–	–	20
EPHYRA.																				
Poraria	1*n*	2	3*r*	4*d*	5	6	7	8	9*c*	10	o	–	13*s*	14*h*	–	–	–	–	–	–
Punctaria	1*n*	–	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14	–	–	–	–	–	20
Trilinearia	–	–	–	4	5	6	7	8	9	o	o	–	13	–	–	16*h*	–	–	–	o
Omicronaria ...	–	2	3	4*d*	5	6	7	8	9	10	11	12	13	14	–	–	–	–	–	o
Orbicularia.....	–	–	–	4*d*	5	6	7	–	–	–	o	o	–	14						
Pendularia.....	–	2	3*r*	–	5	6	7	8	9	o	11	–	13*s*	14	15*	–	–	–	–	20
HYRIA.																				
Auroraria	–	–	–	4*d*	5	o	o	–	–	o	11	12	–	–	–	–	–	–	–	–
ASTHENA.																				
Luteata	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	14*h*	15*	16*	17*	–	19*	20
Candidata	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15*	–	17*	–	–	20*c*
Sylvata	1*h*	o	–	–	5*d*	6	7	–	9	–	o	–	13	14	15*	16	o	–	–	20*c*
Blomeraria.....	–	2*d*	3	–	–	–	–	–	9	–	–	–	13	14	15*	–	–	–	–	20
EUPISTERIA.																				
Heparata	–	2	–	4*d*	5	6	7	o	9*g*	10	11	12*s*	13	14	15	16	–	–	–	20

HEMEROPHILA.																	
Abruptaria.....	21	22	23	24*s*	25												
CLEORA.																	
Viduaria.																	
Glabraria.	–	o	–	–	25	o											
Lichenaria.....	21	22	–	24	25	26*l*	27*	28	29*								
BOARMIA.																	
Repandaria	21	22	23	24	25*	26*l*	–	28	29	–	31*f*	32*					
Rhomboidaria.	21	22	23	–	–	–	o	–	–	–	–	o					
Perfumaria,New.																	
Abietaria	–	–	–	o	–	–	–	–	–	–	–	o					
Cinctaria	–	–	–	–	o	–	–	–	–	–	–	o					
Roboraria	21	–	23														
Consortaria																	
TEPHROSIA.																	
Consonaria.....	–	–	–	–	o												
Crepuscularia...	21	22	o	o	o	–	–	–	o	–	–	o	–	–	o		
Biundularia	21	22	o	24*s*	25	o											
Extersaria.....																	
Punctularia	21	22	o	–	o												
GNOPHOS.																	
Obscurata.	21	22	–	–	25	–	o	28	o	–	31*f*	–	33*f*				
DASYDIA.																	
Obfuscata	–	–	–	–	o	–	o	–	29	–	31*f*	32	–	–	35*		
PSODOS.																	
Trepidaria.....	–	–	–	–	–	–	–	–	29	–	–	o					
MNIOPHILA.																	
Cineraria																	
BOLETOBIA.																	
Fuliginaria.....																	
PSEUDOTERPNA.																	
Cytisaria.....	21	22	o	24	25	26*l*	27	–	29	–	–	32					
GEOMETRA.																	
Papilionaria	21	22	23	24	25	26	27	o	29	–	31*f*	32					
Smaragdaria....																	
NEMORIA.																	
Viridata.....	21	o	–	–	25												
IODES.																	
Vernaria.....																	
Lactearia.	21	22	23	–	25	26*l*	27	–	–	–	–	o					
PHORODESMA.																	
Baiularia	–	22	23	–	25*d*												
HEMITHEA.																	
Thymiaria.....	21	22	23	–	25	–	–	–	29*d*								
EPHYRA.																	
Poraria.	21*s*	–	–	–	–	o	–	–	–	–	–	o					
Punctaria	21	22	23	–	25	26*l*	27*	–	29	–	31*f*	32*					
Trilinearia	21*s*	22*s*	o														
Omicronaria	21*s*	22	23														
Orbicularia																	
Pendularia	–	22	23	–	25	–	o	–	–	–	–	32*	–	–	35*		
HYRIA.																	
Auroraria	21	o	–	–	25*												
ASTHENA.																	
Luteata	21	22	23	24	25	26*l*	–	–	–	–	–	o					
Candidata	21	22	23	24	25	26*l*	–	–	–	–	–	o					
Sylvata	21	o	23	24	25	26*l*											
Blomeraria.....	21	22	–	24													
EUPISTERIA.																	
Heparata	21	22	23	24													

VENUSIA.																					
Cambricaria ...	–	–	o	–	–	–	–	–	–	10*s*	o	–	13	o	–	–	–	–	–	–	
ACIDALIA.																					
Ochreata.....	–	–	–	–	–	–	o	8													
Rubricata	–	–	–	–	–	–	7	–	–	10	o	–	–	–	–	–	–	–	–	–	
Scutulata	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15*	–	–	–	–	20	
Bisetata	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14	15	–	–	–	–	20	
Trigeminata ...	–	2	o	o	5	6*w*	7	8	–	10	–	–	13	14	–	–	–	–	–	–	
Contiguaria ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	18			
Rusticata	–	–	–	4	o	–	7														
Osseata, W. V. ...	–	–	–	–	–	–	–	8*e*													
Holosericata ...	–	–	o	–	–	–	7*w*	–	–	–	–	–	13	14*							
Interjectaria, Bdv. [*Osseata.*]	–	–	–	–	–	–	7*k*	8*	–	–	–	12*k*									
Incanaria	1*d*	2	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	14*h*	15	–	17*d*	–	–	–	
Circellata	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Ornata	–	–	–	4*d*	5	o	7	–	9	–	11	12*d*	13	14	–	–	–	–	–	–	
Promutata	1	2	3*r*	4	5	6	7	8	9*g*	10	o	–	13	–	–	16*h*	–	–	–	–	
Straminata	–	–	–	4	5	–	7	–	9												
Mancuniata, Knag.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Subsericeata ...	1*n*	o	3*r*	4	5	6	7	8	–	10*c*	–	–	13	14*h*	–	–	–	–	–	20*c*	
Immutata	–	2	3*r*	4	5	–	7	–	o	10	11	12	o	o	–	–	o	–	–	–	
Remutata	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15*	–	17*	–	–	20*c*	
Fumata	–	2	–	–	–	–	–	–	–	–	o	–	13	–	–	–	o	–	–	20*c*	
Strigilata	–	–	–	–	5	o	o	7	–	–	–	o	–	–	–	–	–	–	–	–	
Imitaria	–	2	3	4	5	6	7	8	9	10	11	12*s*	13	14*h*	15	–	17*	–	–	20*	
Emutaria	–	o	–	–	5	–	o	o	–	–	o	–	–	–	–	–	–	–	o		
Aversata	1*n*	2	3*r*	4	5	6	7	8	9	10	11	–	13	14	15	–	–	–	–	20	
Inornata	–	–	–	4	5	6	7	8*e*	o	o	o	–	o	–	o	–	–	–	–	–	
Degeneraria ...	–	–	–	4																	
Emarginata ...	–	2	3	4*d*	5	6	7	8	9	10	11	12*	13	14*h*	15*	–	–	–	–	–	
TIMANDRA.																					
Amataria	–	2	3	4*d*	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20	
CABERA.																					
Pusaria	1*n*	2	3*r*	4	5	6	7	8	9	10	11	–	13	14	15	–	17*	–	–	20	
Rotundaria	–	–	–	o	5*s*	6	7	8	–	–	o	–	13*s*	14*	–	–	–	–	–	–	
Exanthemaria ..	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14*h*	15	–	17*	–	–	20	
CORYCIA.																					
Temerata	1*h*	2	–	o	5	6	7	8	9	10	11	12*s*	13	14	15*	–	–	–	–	–	
Taminata	–	2	3*r*	–	5	6	7	8*e*	9	10*c*	o	12	o	o	–	–	–	–	–	–	
ALEUCIS.																					
Pictaria	–	–	–	–	–	o	7	8													
MACARIA.																					
Alternata.	1	2	o	4*d*	5	6	o	–	–	o	–	–	–	–	–	–	–	–	–	–	
Notata	–	2	–	4	5	6	7	o	–	10*	11*	–	o	–	15	16*	–	–	–	–	
Liturata	–	o	3*r*	4*d*	5	6	7	o	9	10	11	–	13	o	–	–	–	–	–	20	
HALIA.																					
Vauaria	–	2	3*r*	4	5	6	7	8	9	10	11	–	13*g*	14	15	–	–	o	–	20	
APLASTA.																					
Ononaria, Fuess.	–	–	–	–	–	–	7*														
STRENIA.																					
Clathrata	–	o	3	4	5	o	6	7	8	9	10	11	12	13	14	–	–	17*	–	19*	20*c*
PANAGRA.																					
Petraria	1*n*	2	3*r*	4	5	6	7	8	9	10	11	12*	13	14	–	–	–	–	–	20*c*	
NUMERIA.																					
Pulveraria	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14*h*	15	–	–	–	–	20	
SCODIONA.																					
Belgiaria.....	–	o	–	4	5	6*n*	7	–	o	–	–	–	–	–	–	–	–	18*z*	–	–	
SELIDOSEMA.																					
Plumaria.....	–	–	–	4	5	–	7	–	–	–	–	–	–	–	–	–	–	–	–	20*c*	

VENUSIA.																		
Cambricaria	21	22*s*	23	24*s*	25	o	–	–	–	–	–	32						
ACIDALIA.																		
Ochreata																		
Rubricata	–	22																
Scutulata	21	22	23	24	25	–	27 *s*	28*										
Bisetata.....	21	22	23	24*	25*	–	27*	28	29*	–	31*f*							
Trigeminata	–	–	–	–	o	–	o											
Contiguaria																		
Rusticata																		
Osseata, w. v. ...																		
Holosericata																		
Interjectaria,Bdv. [*Osseata.*]																		
Incanaria	21	22	23	24	25*h*	26 *l*	27	28										
Circellata	21																	
Ornata	–	–	23*g*															
Promutata.....	21*s*	–	–	24*s*	25*	–	o											
Straminata.....																		
Mancuniata,Knag.	21*k*																	
Subsericeata....	21	–	–	–	25	o												
Immutata	21	22	o	o	25	–	o	o										
Remutata	21	22	23	24	25	26 *l*	27	–	29*	–	31*f*							
Fumata	21	22	o	–	25	–	27*	–	29	–	–	32	–	34*z*				
Strigilata	–	–	–	–	o													
Imitaria.....	21	22	23	24														
Emutaria																		
Aversata.....	21	22	23	24*	25*	–	27*	28	29*	–	31*f*	o						
Inornata	21	22	23	o	25*	o												
Degeneraria																		
Emarginata	21	22	–	–	–	o												
TIMANDRA.																		
Amataria	21	22	23	24*s*	–	–	–	–	–	–	o							
CABERA.																		
Pusaria	21	22	23	24	25*	26 *l*	27*	28	–	–	31*f*							
Rotundaria.....	–	o	23	o	–	o	–	–	o									
Exanthemaria.	21	22	23	o	25	26 *l*	27*	28*	29*	–	31*f*	–	–	34*z*				
CORYCIA.																		
Temerata	21	22	23	–	25													
Taminata	–	22	o	–	o													
ALEUCIS.																		
Pictaria																		
MACARIA.																		
Alternata	o	–	–	–	o													
Notata.....	–	–	–	–	–	–	–	–	–	o								
Liturata.....	21	22	23	24	25	26 *l*	27	28	29	–	31	32						
HALIA.																		
Vanaria.....	21	22	23	24	25*	26 *l*	27*	28	29*	–	31*f*							
APLASTA.																		
Ononaria,Fuess.																		
STRENIA.																		
Clathrata	21	22	o	24	25	26 *l*	–	–	–	–	–	o						
PANAGRA.																		
Petraria.....	21	22	o	o	25	–	–	–	–	–	–	o						
NUMERIA.																		
Pulveraria.....	21	22	23	24	25	26 *l*	–	–	–	–	31*f*	32	33*f*					
SCODIONA.																		
Belgiaria	21	22	23	24*s*	–	–	27 *s*	28	29	–	31*f*	32	–	–	35*			
SELIDOSEMA.																		
Plumaria	21																	

FIDONIA.																				
Carbonaria.....	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Atomaria	1*h*	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	–	18*z*	–	20
Piniaria	–	–	3	4	5	6	7	–	9	10	o	12*	13	14	15	–	–	18*	–	20
Pinetaria	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Conspicuata ...	–	–	–	–	–	–	7	o	–	10	–	–	–	–	–	–	–	–	–	–
MINOA.																				
Euphorbiata ...	–	2	–	4*d*	5	6	7	8	9	10	–	–	13	14						
SCORIA.																				
Dealbata.....	–	–	3*d*	4*d*	–	–	7	–	–	–	–	o								
STERRHA.																				
Sacraria	–	2	–	4	5	6	7	8	–	–	–	–	13*d*	–	–	16*	–	–	–	20*
LYTHRIA.																				
Purpuraria, Lin.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ASPILATES.																				
Strigillaria	–	2	–	4	5	6	7	–	9*h*	–	o	12*s*	–	–	15*	–	–	–	–	–
Citraria	o	2	–	4	5	–	7	8	–	10*c*	–	–	–	–	–	16	–	–	–	–
Gilvaria	–	2	3*r*	–	5*o*	–	7	–	–	10*c*	o									
ABRAXAS.																				
Grossulariata...	1	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20
Ulmata	–	2*m*	3*r*	4*d*	5*a*	–	7	8	9	10*	11	–	13	14	15	–	–	18	–	20
LIGDIA.																				
Adustata.....	1	2	3	4	5	6	7	8	9	10	11	12*s*	13	14*h*	–	–	–	–	–	–
LOMASPILIS.																				
Marginata	–	2	3*r*	4	5	6	7	8	9	10	11	12*	13	14*h*	15	–	17*	–	19*	20
PACHYCNEMIA.																				
Hippocastanaria	–	–	–	4	5	6	7	o	9	–	o									
HYBERNIA.																				
Rupicapraria ...	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14*h*	o	16*	–	–	–	20
Leucophæaria ..	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	–	14	15*	16*	–	–	–	20
Aurantiaria ...	–	2	o	4*d*	5	6	7	8	9	10	o	–	13*s*	14	–	o	–	–	–	20*c*
Progemmaria ...	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	–	20
Defoliaria	–	2	3	4*d*	5	6	7	8	9	10	11	–	13	14	15	16*	–	–	–	20
ANISOPTERYX.																				
Æscularia	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14	15*	–	–	–	–	20
CHEIMATOBIA.																				
Brumata	1*n*	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	–	20
Boreata	–	–	–	–	o	6	7	–	9	–	o	–	o	14	15	o	–	–	–	o
OPORABIA.																				
Dilutata	–	2	3	4*d*	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20
Filigrammaria .	–	2	–	–	–	–	–	–	o	–	o	–	–	–	–	–	–	–	–	–
LARENTIA.																				
Didymata	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13*g*	14	15	–	17*	–	–	20
Multistrigaria .	1	2	3*r*	4*d*	5	6	7	8	9*	o	o	–	13	–	–	–	–	–	–	20*c*
Cæsiata	–	–	–	–	–	–	–	–	–	–	–	–	–	–	o	–	–	18	–	–
Ruficinctata ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Salicata	–	o	–	–	–	–	–	–	–	–	–	–	–	–	–	o	–	–	–	–
Olivata	–	2	–	4	5	6*	7	–	9	10	11	–	13	14*h*	–	16*h*	17*	–	–	20
Pectinitaria ...	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	–	14	15	–	17*	–	–	20
EMMELESIA.																				
Affinitata	1	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14*h*	15	–	17*	–	–	20
Alchemillata ...	1*h*	2	3	4*d*	5	6	7	8	9	10	11	12	13	14	15	–	17*	–	–	20
Albulata	–	2	3*r*	4*d*	5	–	7	8	9	10	11	–	13	14	15	–	17*	–	–	20
Decolorata	1	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14	15	–	–	18*z*	–	20
Tæniata	–	–	–	–	–	–	–	–	–	–	–	–	13	–	–	–	–	–	–	20*c*
Unifasciata	–	2	–	–	5*o*	6	7	8	o	o	–	12	o	14*h*	–	–	–	o	–	–
Ericetata.....	–	–	–	–	o	–	o	–	o	10*s*	–	–	–	–	–	–	–	–	–	–
Blandiata	–	–	–	–	o	–	–	–	–	–	o	–	–	14*h*	–	–	–	–	–	–
EUPITHECIA.																				
Venosata.....	–	2	3*r*	4*d*	5	6	7	o	9	10	11	12*s*	13	–	15*	–	–	–	–	20

FIDONIA.																	
Carbonaria. ...	–	–	–	–	–	–	–	–	29								
Atomaria.	21	22	23	24	25	26*l*	27	28	29	–	31*f*	32	–	34*z*	–	36*z*	
Piniaria.....	21	22	23	24	25	26*l*	27	28	29	–	31*f*	32	–	34*z*			
Pinetaria.	–	–	–	o	–	–	–	–	29								
Conspicuata. ..	–	–	–	–	–	–	–	–	29								
MINOA.																	
Euphorbiata. ...																	
SCORIA.																	
Dealbata.																	
STERRHA.																	
Sacraria.	21	–	–	–	–	–	–	–	29*								
LYTHRIA.																	
Purpuraria, Lin.	–	–	–	–	–	–	–	–	29*								
ASPILATES.																	
Strigillaria. ...	21	22	o	–	25*s*	26*l*											
Citraria.....	–	–	–	–	–	o	–	–	–	–	–	–	o				
Gilvaria.....																	
ABRAXAS.																	
Grossulariata..	21	22	23	24	25	26*l*	27*	28	29*	–	31*f*						
Ulmata.	21	22	23	24	25	–	o										
LIGDIA.																	
Adustata.	–	o	23	–	25*	26*l*											
LOMASPILIS.																	
Marginata.	21	22	23	24	25	26*l*	27	28	29	–	–	32*	33*f*				
PACHYCNEMIA.																	
Hippocastanaria																	
HYBERNIA.																	
Rupicapraria. ...	21	22	23	24	25*	26*l*	27	28	29*								
Leucophæaria ...	21	22	23	24*	25	26*l*	27*	28	29								
Aurantiaria	21	22	23	24	25	26*l*	27	28	29*								
Progemmaria ...	21	22	23	24	25*	26*l*	27*	28	29								
Defoliaria	21	22	23	24	25*	26*l*	27	28	29	–	–	32*					
ANISOPTERYX.																	
Æscularia	21	22	23	–	25	26*l*	27	28	29								
CHEIMATOBIA.																	
Brumata	21	22	23	24*	25*	26*l*	27*	28	29	–	31*f*						
Boreata	21	22	23	24*s*	25	o	–	–	o								
OPORABIA.																	
Dilutata	21	22	23	24*	25*	26*l*	27*	28	29	–	31*f*	32*					
Filigrammaria..	21	–	o	–	25	–	–	28	29	–	31*f*	32					
LARENTIA.																	
Didymata	21	22	23	24	25	26	27*	28	29	–	31*f*						
Multistrigaria...	21	22	23	24	25	–	27	28	29	–	31*f*	32					
Cæsiata	21	o	23	24	25	26*l*	27	28	29	–	31	32	–	34*z*	35*		
Ruficinctata	–	–	–	24*s*	25	–	–	–	29	–	–	32	–	–	35*f*		
Salicata	21	–	23	24	25	–	–	–	29	–	–	32	33*f*	–	35*		
Olivata	21	o	–	24	25	26	27	28	29	–	31	32					
Pectinitaria ..	21	22	23	24*	25	26	27	28	29	–	31*f*						
EMMELESIA.																	
Affinitata.....	21	22	23	24	25	–	–	–	29*a*	–	–	–	33*f*				
Alchemillata ...	21	22	23	24	25	26*l*	27	28	29	–	31*f*	32*					
Albulata	21	22	23	24	25	26*	27	28	29	o	–	–	33*f*				
Decolorata	21	22	23	24	25	–	27	o	–	–	–	o					
Taeniata	–	–	–	24	25												
Unifasciata	21	–	–	24	25	–	o	–	–	–	–	o					
Ericetata	o	–	–	–	25	26	27	28	29	–	–	32	33*f*	–	35*f*		
Blandiata	–	o	–	–	25	–	–	–	29	–	–	32	33*f*				
EUPITHECIA.																	
Venosata.....	–	22	23	24*s*	25												

Consignata	–	–	–	–	–	o	7*s*	–	–	–	–	12*s*	13*g*	o							
Linariata.....	–	2	3*r*	–	–	6*	7	o	o	10	o	12*s*	13	o	–	–	–	–	–		20*c*
Pulchellata.....	1*n*	2	3*r*	4*d*	5*s*	6	7	8*e*	9	10	11	–	o	–	15	16	–	–	–		20
Centaureata	1	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	–	–	–	–	–		20
Succenturiata...	–	2	3*r*	4*d*	o	6	7	8	9	10	o	o	o	14	–	–	17	–	–		o
Subfulvata, Ha.	–	2	3*r*	–	o	o	7	8	9	10*c*	–	–	13*	14	15*a*	–	–	18	19*		20*c*
Subumbrata ...	1*n*	2*m*	–	–	5*d*	6*	7	o	9	–	–	12	13*g*	–	–	–	–	–	–		–
Pernotata	–	–	–	–	–	–	o														
Valerianata,Hb.	–	2*c*	–	4*c*	–	–	–	–	9*c*	–	–	–	–	14*c*	–	–	–	–	–		20
[*Viminata.*]																					
Plumbeolata ...	1*h*	2	3*r*	4*d*	5*c*	6	7	8	–	10	o	12*s*	o	14	–	–	–	–	–		20*c*
Isogrammata,Tr.	–	–	–	o	–	6*	7	o	9*c*	10*c*	o	–	13	14	–	–	–	–	–		–
[*Haworthiata.*]																					
Pygmæata	–	o	–	–	–	–	o	–	–	–	o	12	–	–	15*c*	–	–	–	–		–
Helveticaria ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		–
Arceuthata, Fr.	–	–	–	–	–	–	–	–	9*c*												
Satyrata	–	2*m*	–	–	–	6*	7	o	9	–	o	–	–	14*h*	–	–	–	–	–		–
Egenaria.....	–	–	–	–	5																
Lariciata, Frey.	–	–	–	–	–	6*	7	–	–	–	–	–	13	14	–	–	–	–	–		–
Castigata.....	1*n*	o	3*r*	4*d*	5	6	7	8	9	10	o	12*s*	13	–	15*	–	–	–	–		20
Virgaureata,Dbl.	–	2	–	–	–	–	7	8	9*c*	10	–	–	–	–	–	–	–	o	–		–
[*Pimpinellata*]																					
Albipunctata,Ha.	–	2*c*	–	–	5*n*	–	7	8	9*c*	10*c*	–	–	–	14	–	–	–	–	–		20
Pusillata	–	2	–	o	5	–	7	–	–	o	o	–	–	–	–	–	–	–	–		–
Irriguata.....	–	–	–	4*d*	5	6	7	8*e*	–	–	–	–	–	–	–	–	–	–	–		–
Fraxinata, Cre.	–	–	–	o	o	6	–	8	9	10	o	o	13	14*h*	–	–	–	–	–		20
[*Innotata.*]																					
Indigata	1*h*	–	–	–	5*o*	6	7	o	–	–	–	–	o	–	–	–	–	–	–		–
Constrictata ...	1*h*	o	–	o	–	6*	–	–	9	–	–	–	–	–	–	–	–	18	–		20*c*
Nanata	–	2	–	4*d*	5	6*	7	8*e*	–	10	11	–	–	14	15	–	–	18*	–		20
Subnotata	–	2	–	o	5	6	7	8	–	10*c*	–	–	o	14*h*	–	–	o	–	–		20*c*
Vulgata	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	o	15	–	–	–	–		20
Pimpinellata,Hb.	–	o	–	–	–	6*	7	–	9*c*	10*c*	–	–	–	14	–	–	–	18	–		20
[*Denotata.*]																					
Expallidata	–	–	–	–	–	6*	7	–	–	–	–	–	–	14*g*	–	–	–	18*	–		–
Absinthiata ...	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14	–	–	–	o	–		20
Minutata.....	–	–	–	o	5	–	7	8	–	–	o	–	–	–	15*g*	–	–	–	–		20
Assimilata	–	2	o	o	–	6*	7	8	9	10*s*	o	–	o	14*h*	15	–	–	–	–		20
Campanulata,H.-S.	–	–	–	–	–	–	–	–	9*c*	–	–	–	o	o	–	–	–	–	–		–
Trisignata, H.-S.	–	2*c*	–	–	–	–	7*a*	–	9*c*	10*g*	–	–	–	14	–	–	–	–	–		20
Tenuiata	–	–	o	–	5*n*	–	7	8	9*c*	–	11*n*	–	13	14*h*	–	16	–	–	–		20*g*
Subciliata	–	2*m*	o	o	–	–	7	–	9	10*s*	o	–	–	14*h*	–	–	–	o	–		–
Dodoneata	–	–	–	o	–	6	7	8	9	10	–	–	13*z*	o	–	–	–	–	–		20*g*
Abbreviata.....	–	2	3	4*d*	5	6	7	8	9*c*	10	11	12*s*	–	14*h*	15	16*	–	–	–		20*c*
Exiguata.....	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	o	12*s*	13	14*h*	15*	–	–	–	–		20
Sobriuata	–	–	–	–	–	6*	7	–	9	10	o	–	–	o	o	–	–	–	–		20
Togata...	–	–	–	4	–	–	7	–	9	10*	–	–	–	–	–	–	–	–	–		–
Pumilata.....	1	2	o	4	5	6	7	8	9	10	o	12*s*	13	14*h*	–	16	17*	18*	–		–
Coronata.....	1*	2	3	4*d*	5	6	7	8	9*c*	10	o	–	13	14	–	16*	17*	–	–		–
Rectangulata...	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15	–	17*	–	19*		20
Debiliata	1*h*	2	–	–	–	–	–	–	–	–	–	–	–	–	15*c*						
COLLIX.																					
Sparsata	–	–	–	–	–	–	–	–	–	–	11	12	–	–	–	–	–	–	–		–
LOBOPHORA.																					
Sexalata	–	o	–	4*d*	5	6	7	8	9	10	o	12	–	14	–	–	–	–	–		–
Hexapterata ...	–	o	3*r*	4*d*	5	6	7	8	o	10	–	12*s*	13*s*	14	15*	–	–	–	–		20*c*
Viretata	–	2*	3*r*	4*d*	5	6	7	8	9	10*c*	–	12*s*	o	14	–	c	–	–	–		–
Lobulata.....	–	2	3*r*	4*d*	o	6	7	8*e*	o	10	o	12*s*	13	14*h*	15*	o	–	–	–		–
Polycommata ...	–	–	–	–	–	6	7	8	o	–	o	–	13	14	–	–	–	–	–		–

Consignata																
Linariata	21	–	23	–	–	–	–	o								
Pulchellata	21	22	23	–	25	–	–	28	–	–	–	32				
Centaureata.....	21	22	23	24	25*	–	27	28								
Succenturiata...	21	o	–	24	o	–	o	o	–	–	o					
Subfulvata,Haw.	21	22	23*	24*	25	–	–	28*								
Subumbrata	–	o														
Pernotata																
Valerianata,Hb. [*Viminata.*]	o	–	–	–	o											
Plumbeolata	21	22*s*	23	–	25	–	27	o	o							
Isogrammata, Tr. [*Haworthiata.*]	–	–	–	–	–	o										
Pygmæata	21	22	–	o	25	–	27	28								
Helveticaria ...	–	–	–	–	25*	–	–	28	–	–	o					
Arcuthata,Frey																
Satyrata	21	22	–	24	25	26*l*	27	28	29	–	–	o	–	–	o	
Egenaria																
Lariciata,Freyer	–	22														
Castigata	21	22	o	o	25	26*l*	27	28	29*z*	–	o					
Virgaureata,Dbl. [*Pimpinellata.*]	21*g*	–	23	–	25											
Albipunctata,Ha.	–	22	o	–	25*g*											
Pusillata	–	–	–	–	o	–	–	–	o							
Irriguata	–	–	–	o	–	o										
Fraxinata,Crewe [*Innotata.*]	21	o	23	o	–	o	–	28	–	–	–	o				
Indigata	21	22	–	–	25*	o	–	28	o							
Constrictata.....	21*b*	o	–	–	25	–	o	o	29*z*	–	–	–	o			
Nanata.....	21	22	23*	24*s*	25	26*l*	27	28	29	–	–	–	33*f*			
Subnotata	21*b*	o	o													
Vulgata	21	22	23	24	25	26*l*	27	28	o	o	31*f*					
Pimpinellata,Hb. [*Denotata.*]	–	–	o	–	o											
Expallidata.....	–	o	–	–	o											
Absinthiata.....	21	22	o	24	25	26*l*	27	28	–	–	31*f*					
Minutata	o	o	23	o	–	o	o	o	o	–	o					
Assimilata	21*b*	o	–	o	25	–	o	28	29*d*	–	31*f*					
Campanulata,H-S.	–	–	–	–	25*b*											
Trisignata, H-S.	–	22	o													
Tenuiata	–	22	o	–	25	o	–	–	o							
Subciliata	–	–	–	o	o											
Dodoneata	–	o	o													
Abbreviata	21	22	23*	24	25	26*l*	–	28*	29*s*							
Exiguata	21	22	o	24	o	o	o	28	o							
Sobrinata.....	21*s*	–	–	24	25	o	27	28	29*d*	–	–	o				
Togata	–	–	23*s*	24*s*	–	o										
Pumilata	21	22*s*	–	–	25	26*l*	27	–	29*z*	–	–	32	33*	o		
Coronata	–	22*s*														
Rectangulata ...	21	22	23	24	25	26*l*	27	28	29*	–	31*f*					
Debiliata																
COLLIX.																
Sparsata	–	–	23													
LOBOPHORA.																
Sexalata	21*s*	22	–	–	25											
Hexapterata ...	21*b*	22	23	24*s*	o	–	–	–	–	–	–	–	–	–	o	
Viretata	–	–	–	o	25	26*l*										
Lobulata	21	22	23	24	25	26*l*	27	28	–	–	31*f*	32	–	–	o	
Polycommata ...	–	–	o	–	25	o										

THERA.																			
Juniperata	–	–	–	–	–	–	7	–	9*c*	–	o	–	–	–	–	–	–	–	–
Simulata	–	2*m*	3*r*	–	5	6*	7	–	9	10*c*	o	o	–	–	–	–	–	–	20*c*
Variata	–	2	3*r*	4*d*	5	6*n*	7	8*e*	9	10	11	–	13	14*h*	–	–	–	–	20
Firmata	–	2	–	4*d*	5	6	7	8*k*	9	10	o	o	–	14*h*	–	–	–	–	20*c*
HYPSIPETES.																			
Ruberata	–	o	–	4*d*	5*	6*n*	7	–	9*g*	10*c*	–	12*s*	–	–	–	–	–	–	20
Impluviata	–	2	–	4*d*	5	6	7	8*e*	9	10	11	12*s*	13*g*	14	15	–	–	–	20
Elutata	–	2	3*r*	4	5	6	7	8	9	10	11	–	13*	14	15	–	17*	–	20
MELANTHIA.																			
Rubiginata	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14*h*	15	–	–	–	20
Ocellata	1	2	3*r*	4	5	6	7	8	9	10	11	–	13	14*h*	15	–	17*	–	20
Albicillata	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14	15	16*	17*	18*z*	–	20*c*
MELANIPPE.																			
Hastata	–	–	–	4*d*	5*s*	6*s*	7	8	–	10	11*	–	13	14	15	–	–	o	19*	20*c*
Tristata	–	o	–	–	–	–	o	–	–	10*s*	–	–	o	–	–	–	–	–	–	o
Procellata	–	2	3*r*	4	5	6	7	8	9	10	o	12*s*	13	14	–	16*h*				
Unangulata	1*h*	2	3*r*	4	5	6	7	8	9	10	11	–	13	o	15*a*	–	–	–	–	–
Rivata	1*h*	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13*s*	14	–	–	o	–	–	–
Biriviata, Bork. [*Subtristata.*]	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14	15	–	17*	–	–	20
Montanata	1*n*	2	3*r*	4	5	6	7	8	9	10	11	–	13	14	15	–	17*	18*z*	–	20
Galiata	1	2	3*r*	4	5	6	7	–	9	–	11	–	13	14*h*	–	16*	17*	–	–	20*c*
Fluctuata	1*n*	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	17*	–	–	20
ANTICLEA.																			
Sinuata	1*h*	o	o	4*d*	–	–	7	–	9*c*	10*c*	–	12								
Rubidata	1	2	o	4*d*	5	6	7	8	9	10	o	12	13	14	15*	–	–	–	–	–
Badiata	–	2	3*r*	4	5	6	7	8	9	10	11	12*z*	13	14	15*	–	–	–	–	20
Derivata	–	2	3	4*d*	5	6	7	8	9	10	o	12*s*	13	14	15	–	–	–	–	20
Berberata	–	–	–	4*d*	–	–	–	8	–	o	–	12	–	14	–	–	–	–	–	20*c*
COREMIA.																				
Munitata	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	o
Propugnata	1*h*	2	3*r*	4*d*	5	6	7	8	9*g*	10	11	12*s*	13	14	15	–	–	–	–	20
Ferrugata	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14	15	–	17*	–	–	20
Quadrifasciaria	–	–	3*r*	–	5*o*	–	7	8	9	10	11	12	o	14	–	–	–	–	–	–
CAMPTOGRAMMA.																				
Bilineata	1*n*	2	3*r*	4	5	6	7	8	9	10	11	–	13	14	15	–	–	o	–	20
Fluviata	–	2	3	–	5	6	7	8	o	–	o	–	o	14	–	16*	–	–	–	o
PHIBALAPTERYX.																				
Tersata	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	14	–	–	–	–	–	–
Lapidata	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lignata	1*	2	–	4*d*	5	–	7	8	–	10	11	12	13	–	–	–	–	–	–	–
Polygrammata	–	–	–	–	–	–	–	–	–	–	–	12	o	–	–	–	–	–	–	–
Vitalbata	–	2*	3	4	5	6	7	8	9	10	–	12*s*	13	14	–	–	–	–	–	–
SCOTOSIA.																				
Dubitata	–	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	–	18*	–	20
Vetulata	–	–	–	4*d*	–	6	7	8	9	o	11	12*s*	13*s*	–	15*a*	16*h*	–	–	–	20*c*
Rhamnata	–	–	o	4*d*	–	6	7	8	9	10	11	12*s*	13	14	15*	–	–	–	–	20*c*
Certata	–	–	3	–	5	–	7	8	9	10	11	12*s*	13	14	15*	–	–	–	–	–
Undulata	1*h*	2	–	4*d*	5	6	7	8	9	10	11	o	13	14	15*	–	–	–	o	–
CIDARIA.																				
Psittacata	–	2	3*r*	4*d*	5	6	7	–	9	10	–	–	13	14	–	–	–	–	–	–
Miata	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15*	–	–	–	–	20*c*
Picata	–	2	3	4*d*	5	6	7	8	9	10	11	–	–	–	–	–	–	18	–	–
Corylata	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14	15*	–	–	–	–	20
Sagittata	–	–	–	–	–	–	–	–	–	o	o	12								
Russata	1*n*	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	17*	–	–	20
Immanata	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	11	o	13	14	15	–	17*	–	–	20
Suffumata	–	2	3	4*d*	5	6	7	8	9	10	11	–	13	14*h*	15	–	–	–	–	20
Silaceata	–	2	3	4*d*	5	6	7	8	9	10	11	12*h*	13	14	15*	–	–	–	–	20

THERA.																			
Juniperata	–	–	–	o	o	o	27	–	o	–	–	o							
Simulata	o	–	23	24	25	26*l*	27	28	29	–	o	o	–	–	o				
Variata	21	22	o	o	25	26*l*	27*	28	29	–	31*f*	–	–	34*z*	35*				
Firmata	21	22	23*	–	25	26*l*	27	28	29*										
HYPSIPETES.																			
Ruberata	21	22	–	–	o														
Impluviata	21	22	23	24	25	26*l*	27	28	29	–	31*f*	o							
Elutata	21	22	23	24	25	26*l*	27*	28	29*	–	31*f*	–	–	–	35*				
MELANTHIA.																			
Rubiginata	21	22	23	24	25	26*l*	27	28	29*	–	–	32							
Ocellata	21	22	23	24*	25	26*l*	27*	28	29	–	31*f*								
Albicillata	21	22	23	24	25	26*l*													
MELANIPPE.																			
Hastata	21	22	23	24	25	26*l*	27*	–	29	–	–	32	33						
Tristata	–	–	23	24	25	–	27	28	29	–	–	32							
Procellata																			
Unangulata	21	–	o	–	–	–	–	–	o										
Rivata	21	o	o	–	o														
Biriviata, Bork. [*Subtristata.*]	21	22	23	24*	25	–	27*	28*	29*	–	31*f*								
Montanata	21	22	23	24	25	26*l*	27*	28	29	–	31*f*	–	–	–	–	36*z*			
Galiata	21	22	23	–	25	26*l*	–	28	–	–	–	32							
Fluctuata	21	22	23	24*	25*	26*l*	27*	28	–	–	31*f*								
ANTICLEA.																			
Sinuata																			
Rubidata	21*s*	–	–	o															
Badiata	21	22	23	24*	25*	26*l*	27	28	29*	–	31*f*								
Derivata	21	22	23	24	25	26*l*	27	28	–	–	31*f*	32							
Berberata																			
COREMIA.																			
Munitata	21*s*	22	o	24	25	o	o	28	29	o	31*f*	32							
Propugnata	21	22	23	24	25	26*	27*	28	–	–	31*f*	32*	33*f*						
Ferrugata	21	22	23	24*	25	26	27	28	29*z*	–	31*f*	32							
Quadrifasciaria	–	–	–	–	o	o													
CAMPTOGRAMMA.																			
Bilineata	21	22	23	24*	25*	–	27*	28	29	–	31*f*	–	–	34*z*					
Fluviata	21	22*																	
PHIBALAPTERYX.																			
Tersata	–	o																	
Lapidata	–	–	–	–	–	–	–	–	29	–	–	o	–	–	35*				
Lignata	21	22	23	–	–	–	o	28	29*a*	30									
Polygrammata	–	–	–	–	o														
Vitalbata	o	o	o																
SCOTOSIA.																			
Dubitata	21	22	23	24	25	26*l*	–	28											
Vetulata	–	o	–	–	o														
Rhamnata	–	o	o																
Certata	–	o	–	o															
Undulata	21	22	23	–	25	o													
CIDARIA.																			
Psittacata	21*s*	22	23	24	25	26*l*	–	o	o	o	31*f*	32	–	–	o				
Miata	21	22	23	24	25	26*l*	27	28	29	30*	31*f*	32	–	–	35*				
Picata	–	–	–	o	–	o	–	–	o										
Corylata	21	22	23	24*	25	–	–	28	29	–	–	32*	33*f*						
Sagittata																			
Russata	21	22	23	24*	25	–	27*	28	29	–	31*f*	32*	33*f*						
Immanata	21	22	23	24	25	–	27*	28	29	–	31*f*	–	–	–	35*	–	37*	38*	
Suffumata	21	22	23	24	25	26*l*	–	28	29	–	31*f*	32							
Silaceata	21	22	23	24	25	26*l*	27	28	29	–	–	32	33*f*						

Reticulata, w. v.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Prunata	–	2	3*r*	4	5	6*	7	8	9*g*	10	11	12*	13	14	15	–	–	–	–	20
Testata	–	2	3	4*d*	5	6	7	8	9	10	11	12*	o	14	15	–	–	–	–	20
Populata	1*h*	2	3*r*	–	–	6	7	8*e*	9	10	o	–	13*g*	14	15	–	–	–	–	20
Fulvata	1*h*	2	3*r*	4	5	6	7	8	9	10	11	12	13*g*	14	15	–	17*	–	–	20
Pyraliata	–	2	3*r*	4	5	6	7	8	9	10	11	–	13	14	15	–	17*	–	–	20
Dotata	–	2	3*r*	4	5	6	7	8	9	10	o	12	13	14	15	–	–	–	–	20
PELURGA.																				
Comitata	–	–	3*r*	o	5	6	7	8	9	10	11	12*s*	–	–	15	–	–	–	–	20
EUBOLIA.																				
Cervinaria	–	2	3*r*	o	5	6	7	8	9	10	11	12*s*	13	14	15*	–	–	–	–	20
Mœniata, Scop.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Mensuraria	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14	15	–	–	–	19*	20
Palumbaria	o	2	3	4	5	6	7	8	9	10	11	12*s*	13	14	15	–	17*	–	–	20*c*
Bipunctaria	1	2	3*r*	4	5	6	7	8	9	–	o	12*s*	13	–	15	–	–	–	–	20
Lineolata	–	2	3*r*	4*d*	5	6	7	–	–	–	o	12	–	–	–	–	–	18*b*	–	–
CARSIA.																				
Imbutata	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ANAITIS.																				
Plagiata	–	2	3	4*d*	5	6	7	8	9	10	11	12	13	14*h*	15	–	–	–	–	20
LITHOSTEGE.																				
Griseata, w.v. [*Nivearia.*]	–	–	–	–	–	–	–	–	–	10	o									
CHESIAS.																				
Spartiata	–	–	–	–	5*	6	7	8	9	10	11	o	o	14*h*	15*	16*	–	–	–	–
Obliquaria	–	–	3*r*	–	–	6	7	8	–	10	–	–	–	–	–	–	–	–	–	–
TANAGRA.																				
Chærophyllata	–	2	3*r*	4*d*	5	6	7	8	9*c*	10*c*	11*	12*s*	13	14*h*	15	–	–	18	19*	20*c*

Drepanulæ.

PLATYPTERYX.																				
Lacertula	–	2	–	4*d*	5	6	7	8	9	10	o	–	13	14	15	–	–	–	–	20
Sicula	–	–	3																	
Falcula	–	2	–	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	o	20
Hamula	–	2	3*r*	4*d*	5	6	7	8	9	10	–	–	13	14	–	o	–	–	–	–
Unguicula	–	o	3	4*d*	5	6*	7	8	9	10	–	–	13	14						
CILIX.																				
Spinula	1	2	3*r*	4*d*	5	6	7	8	9	10	11	12*	13	14	15	–	–	–	–	20

Pseudo-Bombyces.

DICRANURA.																				
Bicuspis	–	–	–	–	–	6	–	o	o	–	o	–	–	o	o	–	–	–	–	20
Furcula	–	2	3	–	5	6	7	8	9	10	o	12	13	14	15	–	–	–	–	20
Bifida	–	2	–	o	5*o*	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20
Vinula	o	2	3*r*	4	5	6	7	8	9	10	11	–	13	14	15	o	–	–	19*	20
STAUROPUS.																				
Fagi	1	2	–	4	5	6	7	8	9	–	o	o	13	14	–	–	–	–	–	o
PETASIA.																				
Cassinia	–	2	3	4*d*	5	6	7	8	9	10	o	12	13	14	15	–	–	–	–	20
Nubeculosa	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
PYGÆRA.																				
Bucephala	1*	2	3	4	5	6	7	8	9	10	11	–	13	14	15	–	–	o	19*	20
CLOSTERA.																				
Curtula	–	–	–	–	5	6*s*	7	8	9	10	11	12	o	14	15	–	–	–	–	o
Anachoreta, w.v.	–	–	–	–	–	–	7													
Reclusa	–	–	–	–	5	6	7	8	9	10	11	12	o	14*h*	o	16*h*	–	–	–	o

Reticulata, w.v.	–	–	–	–	25											
Prunata	21	22	23	24*	25	26*l*	27*	28	o	–	31*f*	32*				
Testata	21	22	23	24*	25	26*l*	27*	28	29*	–	31	32*s*	–	–	35*	
Populata	21	22	23	24	25	26	27	28	29	–	31	32				
Fulvata	21	22	23	24	25*	26*l*	27*	28	29	–	31*f*	32*				
Pyraliata	21	22	23	24	25*	26	27	28	29*	–	–	32*	33*f*			
Dotata	21	22	o	o	o	–	o									
PELURGA.																
Comitata	21	22	23	24	25*	26*l*	27	28	o							
EUBOLIA.																
Cervinaria	21	22	23	24	–	26*l*	27	28								
Mœniata, Scop.	–	22*	–	–	o											
Mensuraria	21	22	23	24*	25	26*l*	27*	28	o	–	–	–	o	–	o	
Palumbaria	21	22	23	24	25	26*l*	27	28	29	–	31*f*	32				
Bipunctaria	–	22	–	24												
Lineolata	21	–	o													
CARSIA.																
Imbutata	21	–	23*	24*s*	25	26	–	–	29	–	31*	32	33*f*			
ANAITIS.																
Plagiata	21	22	23	24	25	26	27	28	29*a*	–	31*f*	32	–	o		
LITHOSTEGE.																
Griseata, w.v. [*Nivearia.*]																
CHESIAS.																
Spartiata	–	22	o	24	25*	26*l*	27	28	29*	30*	31*f*					
Obliquaria	–	–	–	24*s*	–	–	27	–	29*	–	31*f*					
TANAGRA.																
Chærophyllata	21	22	23	24	25	26*l*	27	28	29	–	31*f*	32				
Drepanulæ.																
PLATYPTERYX.																
Lacertula	21	22	23	24*s*	25	o	–	–	o	–	–	32	33*f*	–	35*	
Sicula																
Falcula	21	22	23	–	25	–	–	–	29	–	–	32	–	–	o	
Hamula	–	–	–	–	o											
Unguicula																
CILIX.																
Spinula	21	22	23	–	25	–	27	28*	–	–	–	32*				
Pseudo-Bombyces.																
DICRANURA.																
Bicuspis	21	22	o													
Furcula	21	22	23	24	25	26*l*	27	28	29	–	31*f*	–	33*f*			
Bifida	21	22	23	–	o											
Vinula	21	22	23	24	25	26	27	28	29	30*	31*f*	32*	–	–	35*	
STAUROPUS																
Fagi																
PETASIA.																
Cassinia	21*s*	22	23	24*s*	25	o										
Nubeculosa	–	–	–	–	–	–	–	–	29							
PYGÆRA.																
Bucephala	21	22	23	24	25*	26	27	o	29	o	31*f*	32*	33*f*			
CLOSTERA.																
Curtula	–	22	–	–	25											
Anachoreta, w.v.																
Reclusa	–	22	–	o	25	26	–	28	29	–	–	32	33*f*			

GLYPHISIA.																				
Crenata	–	–	–	–	–	–	–	8	9											
PTILOPHORA.																				
Plumigera	–	o	–	–	–	–	7	–	9	o										
PTILODONTIS.																				
Palpina	–	2	3	4*d*	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20
NOTODONTA.																				
Camelina	–	2	3*r*	4	5	6	7	8	9	10	11	o	13	14	15*	16	–	–	–	20
Cucullina	–	o	–	–	–	6*	7*	–	9	10										
Carmelita	–	–	–	–	–	6	7	8	9	–	–	–	–	–	–	–	–	–	–	20*
Bicolor	–	–	–	–	–	–	–	–	–	–	–	–	–	–	o					
Dictæa	–	2	3*r*	o	5	6	7	8	9	10	11	12	13	14	15	–	–	–	o	20
Dictæoides	–	o	–	–	5	6	7	8	9	10	11	–	o	14	15*g*	16*	–	–	–	20
Dromedarius	–	2	–	4*d*	5	6	7	8	9	10	11	o	13	14	15	16*h*	–	–	–	20
Trilophus	–	o	–	–	–	–	o	8	–	–	–	–	o	–	–	–	–	–	–	–
Ziczac	o	2	o	4*d*	5	6	7	8	9	10	11	12	13	14	15	o	–	–	19*	20
Trepida	–	2	–	–	5	6*	7	8	9	10	11	–	–	14	o	16*c*	–	–	–	o
Chaonia	–	2	–	4*d*	5	6	7	8	9	10	11	–	13	–	15*	–	–	–	–	20*g*
Dodonæa	–	o	–	–	5	6	7	8	9	10	11	o	13*g*	14	15	16*c*	–	–	–	20
DILOBA.																				
Cæruleocephala	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13*g*	14	15	–	–	–	–	20

Noctuæ.

THYATIRA.																				
Derasa	–	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	17	–	–	20
Batis	1	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	16	17*	–	–	20
CYMATOPHORA.																				
Duplaris	–	2	3*r*	4	5	6	7	8	9	10	11	12*h*	13*g*	14	15	16	–	–	–	20*c*
Fluctuosa	–	o	–	–	–	6	7	–	o	10*s*	–	–	–	14	–	–	–	18*	–	–
Diluta	–	2	3*r*	o	5	6	7	8	9	10	11	–	13*s*	14	15	–	–	–	–	20
Or	–	–	o	–	–	6	7	8	9	10	o	12*s*	13	14	–	–	–	–	–	–
Ocularis	–	–	–	–	–	–	–	o	9	10	o	12	13*g*	14						
Flavicornis	–	o	o	–	–	6	7	8	9	–	o	–	13	14*h*	15	16*	–	–	–	20
Ridens	–	2	o	4*d*	5	6	o	8	9	10	–	o	–	14	–	–	–	–	–	o
BRYOPHILA.																				
Glandifera	1*d*	2	3*r*	4*	5	6	7	–	–	–	o	–	13	14						
Perla	–	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20
Algæ, Fab.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DIPHTHERA.																				
Orion	1*h*	2*m*	–	–	5	6	7	o	–	10	o	–	–	–	–	–	–	–	–	–
ACRONYCTA.																				
Tridens	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13*s*	14	15	–	–	–	–	20
Psi	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	11	12*	13*g*	14	15	–	–	–	19*	20
Leporina	–	2	o	4*d*	5	6	7	8	–	10	11	–	13	14	15	16*	–	–	–	20
Aceris	–	–	3*r*	4*d*	5	6	7	8	9*	10	11	12	–	–	–	–	–	–	–	o
Megacephala	–	2	3*r*	4	5	6	7	8	9	10	11	o	13	14	15*	–	–	–	–	20
Strigosa	–	–	–	–	–	–	–	–	–	–	o	12								
Alni	–	2	–	4	5	6	7	8	9	10	o	–	13	14	15	–	–	–	o	20
Ligustri	1*h*	2	3	4	5	6	7	8	9	10	11	12	13	14	15*	–	–	–	–	20*g*
Rumicis	–	2	3*	4*d*	5	6	7	8	9	10	11	12*	13	14	15*	16*	–	–	–	20
Auricoma	–	o	–	–	–	6	7	–	–	–	o	–	–	–	–	–	–	–	–	–
Menyanthidis	–	–	–	–	–	–	–	–	–	10*s*	–	–	–	–	15 *s*	–	–	–	–	o
Myricæ	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SIMYRA.																				
Venosa.	–	–	–	–	–	–	–	–	–	10	o	12								
SYNIA.																				
Musculosa	–	–	–	–	–	6														
LEUCANIA.																				
Conigera	–	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	16*c*	17*	18*	–	20

GLYPHISIA.																	
Crenata																	
PTILOPHORA.																	
Plumigera																	
PTILODONTIS.																	
Palpina	21*b*	22	o	–	25	26*l*	27*										
NOTODONTA.																	
Camelina	21	22	23	24	25	26	27	28	29	–	31*f*	–	33*f*				
Cucullina																	
Carmelita	–	–	–	–	25	–	–	–	29*	–	31*f*	o					
Bicolor																	
Dictæa.....	21	22	23	24	25	26*l*	27	28	29	–	31*f*	32*					
Dictæoides	21	22	23	–	25	26*l*	o	o	o	–	–	32					
Dromedarius ...	21	22	23	–	25	26	27	28	29	30*	31*f*	32					
Trilophus.....	–	–	–	–	–	–	o										
Ziczac	21	22	23	24	25	26*l*	27	28	o	–	–	32	33*f*				
Trepida	21	22	o	–	25												
Chaonia	21	22	–	–	25	–	–	–	29								
Dodonæa.....	–	22	o	–	25	–	–	–	–	–	–	o					
DILOBA.																	
Cæruleocephala	21	22	23	24	25	o	27	–	o								
Noctuæ.																	
THYATIRA.																	
Derasa.....	21	22	23	o	25												
Batis	21	22	23	24	25	26*l*	27	–	29*	–	31*f*	32					
CYMATOPHORA.																	
Duplaris	21	22	23	24	25	–	27*	–	29	–	31*f*	32*	–	34*	35*		
Fluctuosa	–	–	23	–	25												
Diluta	21*s*	22	23	–	25	26*l*											
Or.....	–	o	–	o	o	–	o	–	o	–	–	o					
Ocularis																	
Flavicornis.....	21	22	23	–	25	–	27*	–	29	–	31*	32*					
Ridens.....	21*s*	o	o	–	25												
BRYOPHILA.																	
Glandifera																	
Perla	21	22	23	24	25	26*l*	27*	28	29*								
Algæ, Fab.	21*																
DIPHTHERA.																	
Orion	–	–	–	o													
ACRONYCTA.																	
Tridens	–	22	23	o	o	–	–	–	o								
Psi	21	22	23	24*	25*	26*l*	27*	28	29*	30*	31*f*	–	33*f*				
Leporina.....	21	22	23	24*	25	26	27*	–	o	–	31*f*	32*	–	–	o		
Aceris	o	–	–	–	–	o											
Megacephala ...	21	22	23	–	o												
Strigosa																	
Alni.....	21	22	23														
Ligustri	21*s*	22	23	–	25	26*l*	–	–	29	–	31*f*	32					
Rumicis	21	22	23	24	25	26*l*	27*	28	29	–	31*f*	32	33*f*				
Auricoma	–	–	o														
Menyanthidis...	21	22	23	o	25	26*l*	–	–	29	–	–	32	33*f*				
Myricæ	–	–	–	–	–	–	–	–	29	30*	31*f*	o					
SIMYRA.																	
Venosa.....																	
SYNIA.																	
Musculosa																	
LEUCANIA																	
Conigera.....	21	22	23	24	25	26*l*	o	28	o	–	31*f*						

Vitellina	–	–	–	–	5	6															
Turca	–	–	–	–	5	6	o	8*e*	–	–	o	–	–	–	–	–	o	–	–	–	
Lithargyria	o	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13*g*	14	15	–	17*	–	–	20	
Extranea, Gn.	–	–	–	–	5	6															
Obsoleta	–	–	–	–	–	–	o	8	–	–	o	o									
Loreyi, Dup.	–	–	–	–	–	6															
Littoralis	–	2	3*r*	4*d*	5	–	o	–	–	–	o	–	o	–	–	o	–	o	19	–	
Putrescens, Hb.	–	2																			
Pudorina	–	–	–	–	–	6	–	–	o	10	11	12	–	–	–	16	–	–	–	–	
Comma	–	2*m*	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15	16*	–	–	–	20	
Straminea	–	–	3*r*	–	5	o	7	8	–	o	o	–	–	–	o						
Impura	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12*	13*g*	14	15	16*	–	–	19*	20	
Pallens	–	2	3*r*	4	5	6	7	8	9	10	11	12*	13*g*	14	15	–	17*	–	19*	20	
Phragmitidis	–	–	–	–	–	–	7	8*	o	o	11	12	–	–	–	–	–	–	–	–	
MELIANA.																					
Flammea	–	–	–	–	–	–	–	–	–	–	o	12*s*									
SENTA.																					
Ulvæ	–	–	–	–	–	–	–	8	–	o	o	12									
TAPINOSTOLA.																					
Bondii, Knaggs.	–	–	–	4	–	–	7														
Elymi, Tr.	–	–	–	–	–	–	–	–	–	–	11										
NONAGRIA.																					
Despecta	–	–	–	–	5	–	7	8	–	o	11	12	–	–	o	–	–	–	–	–	
Fulva	–	2*	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15	16*	–	–	–	20	
Concolor	–	–	–	–	–	–	–	–	–	–	o	12	–	–	–	–	–	–	–	–	
Hellmanni	–	–	–	–	–	–	–	–	–	–	o	12									
Neuriea	–	–	–	–	–	–	–	–	–	–	11	12									
Brevilinea, Fen.	–	–	–	–	–	–	–	–	–	–	11*n*										
Geminipuncta	–	–	3*r*	–	–	–	–	8	–	o	o	12*s*									
Cannæ	–	–	–	o	–	6*n*	–	–	–	–	o	12	–	–	–	–	–	–	–	–	
Typhæ	–	2	3*r*	–	5	6*	7	8	9	10	11	12	–	14	15	–	17*	–	–	20	
Lutosa	–	2*	3*r*	4*d*	5	6	7	8	–	10	11	o	13	o	15	–	o	–	–	20*c*	
GORTYNA.																					
Flavago	–	2	3*r*	4	5	6	7	8	9	10*c*	11*	12*s*	13	14	15	–	–	–	–	20	
HYDRŒCIA.																					
Nictitans	–	2	3	4*d*	5	6*	7	8	9	10	11	12	13*s*	14	15	–	–	–	–	20	
Petasitis	–	–	–	–	–	–	–	–	–	–	o	–	–	–	–	o	–	–	–	–	
Micacea	–	2	3	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15	–	–	–	–	20	
AXYLIA.																					
Putris	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15	–	–	–	19*	20	
XYLOPHASIA.																					
Rurea	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13*g*	14	15	16*	17*	–	–	20	
Lithoxylea	1*n*	2	3*r*	4	5	6	7	8	9	10	11	o	13	14	15	–	17*	–	–	20	
Sublustris	–	2	–	–	5	6	7	8*e*	9	10	11	12	13	–	–	–	–	–	–	o	
Polyodon	1*n*	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	17*	–	–	20	
Hepatica	–	2	3	4	5	6	7	8	9	10	11	12*s*	13	14	15	–	17*	18	–	20	
Scolopacina	–	2	3*r*	–	–	–	7	8	9*s*	10	11	–	–	–	15	–	–	–	–	20	
DIPTERYGIA.																					
Pinastri	–	o	3*r*	4	5	6	7	8	9	10	11	–	–	o	–	–	–	–	–	–	
XYLOMIGES.																					
Conspicillaris	–	–	o	–	–	–	7	–	–	–	–	–	–	14							
APOROPHYLA.																					
Australis	–	2	–	4	5	6	7														
LAPHYGMA.																					
Exigua	–	o	–	–	5	6	7														
NEURIA.																					
Saponariæ	–	o	–	o	5*o*	6	7	8	9	10	11	12	13	14*	15	–	–	18*	–	20*c*	
HELIOPHOBUS.																					
Popularis	–	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20	
Hispidus	–	2	–	4	5	–	–	–	–	–	–	–	o								

Vitellina.....																	
Turca	21*s*	–	–	–	–	–	o										
Lithargyria.....	21	22	23	24	25*	26*l*	o	28	–	–	31*f*						
Extranea, Gn....																	
Obsoleta																	
Loreyi, Dup. ...																	
Littoralis	21	–	–	–	o	–	o										
Putrescens, Hb.																	
Pudorina.....	–	22	o														
Comma	21	22	23	24	25*	26*l*	–	–	29*								
Straminea																	
Impura	21	22	23	24	25*	26*l*	27*	28	29	–	31*f*	32*					
Pallens	21	22	23	24*	25*	26*l*	27*	28	29*	–	31*f*						
Phragmitidis ...	–	o															
MELIANA.																	
Flammea																	
SENTA.																	
Ulvæ																	
TAPINOSTOLA.																	
Bondii, Knaggs.																	
Elymi, Tr.																	
NONAGRIA.																	
Despecta.....	21*b*																
Fulva	21	22	23	24	25	–	27*	28	29	30*	–	32*s*	33*f*	–	35*		
Concolor	–	–	o														
Hellmanni																	
Neurica																	
Brevilinea, Fen.																	
Geminipuncta																	
Cannæ.....	–	–	o														
Typhæ	21	22	23														
Lutosa	21	22	23	–	–	–	–	–	o								
GORTYNA.																	
Flavago	21	22	23	24*s*	–	o	–	–	o								
HYDRŒCIA.																	
Nictitans.....	21	22	23	24	25	26	27*	28	29*	–	31*f*	32	33*f*	–	35*		
Petasitis	21	o	o	–	25	o	–	28	29*s*								
Micacea	21	22	23	24	25	26	27*	28	29*s*	–	31	32*					
AXYLIA.																	
Putris	21	22	23	24*s*	25	26*l*	27*	28	29*	–	–	–	33*f*				
XYLOPHASIA.																	
Rurea	21	22	23	24	25	26*l*	27	28	29	–	31*f*						
Lithoxylea	21	22	23	24*	25	–	27*	28	29*	–	–	32*					
Sublustris	o	22	o	24	25												
Polyodon	21	22	23	24	25	26	27	28	29	–	31*f*	–	–	31*			
Hepatica.....	21	22	23	24*s*	–	26*l*											
Scolopacina ...	21	22	23	–	o												
DIPTERYGIA.																	
Pinastri	o																
XYLOMIGES.																	
Conspicillaris...																	
APOROPHYLA.																	
Australis.....																	
LAPHYGMA.																	
Exigua																	
NEURIA.																	
Saponariæ	o	22	o														
HELIOPHOBUS.																	
Popularis	21	22	23	24	25*	26*l*	–	28	29*	o							
Hispidus.....																	

CHARÆAS.																				
Graminis.....	–	o	3*r*	4*d*	5	6	7*	8*e*	9	10	11	–	13*s*	14	15	–	–	–	–	20
PACHETRA.																				
Leucophæa.....	–	–	–	–	–	o	7													
CERIGO.																				
Cytherea.....	1*d*	2	–	4	5	6	7	8	9	10	o	12	13	14	15	–	–	18	–	20
LUPERINA.																				
Testacea.....	–	2	3	4	5	6	7	8	9	10	11	o	13	14	15	–	–	18*	–	20*c*
Guenecei, Dbl....	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	18		
Dumerili.....	–	–	–	o	o	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cæspitis	–	o	–	o	5	6	7	8	o	10	o	–	13*	14	–	16*	–	–	–	20
CRYMODES.																				
Exulis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
MAMESTRA.																				
Abjecta	–	–	3*r*	1*d*	5	6	7	8	–	10	o	12*	–	–	–	–	–	18	–	–
Anceps	–	o	–	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15	–	–	–	–	20*c*
Albicolon	–	2*m*	3*r*	–	–	–	o	–	–	10*s*	–	–	–	–	–	o	–	–	–	–
Furva	–	2*m*	3*r*	–	–	–	7*k*	–	9	10	o	–	o	14*h*	15	–	–	18	–	o
Brassicæ	1*n*	2	3*r*	4	5	6	7	8	9	10	11	12	–	14	15	–	–	–	–	20
Persicariæ	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	–	14	15	–	–	18*	–	20
APAMEA.																				
Basilinea.....	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	–	14*h*	15	–	–	–	–	20
Connexa	–	–	–	–	–	–	–	–	–	–	o	–	–	–	–	–	–	–	–	o
Gemina	1*h*	2	–	4	5*o*	6	7	8	9	10	11	o	13*g*	14	15	–	–	–	–	20
Unanimis	–	2*m*	3*r*	–	5*	6	7	8	9	10	11	12	13	14*h*	o	–	–	–	–	20
Ophiogramma...	–	–	–	–	–	–	7	8	–	o	o	o	–	–	–	–	–	–	–	–
Fibrosa	–	–	–	o	–	6*	7	8	–	10	11	12*s*	–	–	–	o	–	–	–	–
Oculea.....	–	2	3*r*	4	5	6	7	8	9	10	11	12*	13	14	15	–	–	–	–	20
MIANA.																				
Strigilis	1	2	3*r*	4	5	6	7	8	9	10	11	o	13*g*	14*h*	15	–	–	18*z*	–	20
Fasciuncula ...	–	2	3*r*	4*d*	5*o*	6	7	8	9	10	11	12	13	14	15	16*	–	–	19*	20
Literosa	–	2	3*r*	4*d*	5	6	7	8	9*c*	10	o	12*s*	–	14*h*	o	16*	–	–	19	20*c*
Furuncula	1	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14*h*	–	–	–	–	19*	20
Arcuosa	–	2	3*r*	4	5	6	7	8	9	10	–	–	13	14	15	–	–	–	–	20
PHOTEDES.																				
Captiuncula, Tr. [*Expolita.*]	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CELÆNA.																				
Haworthii	–	–	–	–	5*g*	6*	–	–	–	–	o	12*d*	–	–	–	16*	–	–	–	–
GRAMMESIA.																				
Trilinea	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14	15	16	–	–	–	20
HYDRILLA.																				
Palustris, Hüb..	–	–	–	–	–	–	–	–	–	–	–	12*z*	–	–	–	–	–	–	–	–
ACOSMETIA.																				
Caliginosa	–	–	–	–	5															
CARADRINA.																				
Morpheus	1*n*	2	3*r*	o	5	6	7	8	9	10	11	12	13	o	15	–	–	–	–	20
Alsines	–	2	3	4*d*	5	6	7	8	9	10	11	–	13*g*	o	–	–	–	o	–	20
Blanda.....	–	2	3*r*	4*d*	5	6	7	8	9	10	o	12*s*	13	14	o	–	–	–	–	20
Cubicularis.....	1*n*	2	3*r*	4	5	6	7	8	9	10	11	12*	13	14	15	–	–	–	–	20
RUSINA.																				
Tenebrosa	–	2	3*r*	o	5	6	7	8	9	10	11	12*h*	o	14*h*	15	16*	–	18	–	20*c*
AGROTIS.																				
Valligera.....	–	2	3*r*	4*d*	5	–	7	–	–	10	11	o	–	o	–	o	–	18*	19*	–
Puta.....	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13*s*	14*h*	o	–	–	–	–	20
Suffusa.....	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14	15*	–	–	–	–	20
Saucia.....	–	2	3*r*	4*d*	5	6	7	8	–	10	11	12*s*	o	14	15	16*	–	–	–	20
Segetum	1	2	3*r*	4	5	6	7	8	9	10	11	12*	13	14	15	–	–	–	–	20
Lunigera.....	–	2	–	–	5	–	–	–	–	–	–	–	–	–	–	–	–	18*	–	–
Exclamationis ..	–	2	3*r*	4	5	6	7	8	9	10	11	12*	13	14	15	–	–	18*z*	–	20

CHARÆAS.																					
Graminis	21	22	23	24	25	26	*l*	27	28	29	30*	31	32*s*								
PACHETRA.																					
Leucophæa																					
CERIGO.																					
Cytherea	21	22	–	24	25	26	*l*														
LUPERINA.																					
Testacea	21	22	23	24*s*	25	26		27*	28	o	–	31*f*									
Gueneei, Dbl.																					
Dumerili	–	–	–	–	–	–		–	–	–	–	–	32								
Cæspitis	21	22	23	–	o	–		–	–	–	–	–	o								
CRYMODES.																					
Exulis	–	–	–	–	–	–		–	–	29	–	–	32								
MAMESTRA.																					
Abjecta	21	22	o	24																	
Anceps	21	22	o	24	o	–		o	28												
Albicolon	21	–	–	24	25																
Furva	o	22	–	o	25	–		27*	28	29	–	31*f*	o								
Brassicæ	21	22	23	24	25*	26	*l*	27*	28	29	30*	31*f*									
Persicariæ	21	–	–	–	–	–		–	–	–	o										
APAMEA.																					
Basilinea	21	22	23	24*	25*	26	*l*	27*	28	29*	–	31*f*	32*								
Connexa	–	22	23																		
Gemina	21	22	23	–	25	26	*l*	27*	28	–	–	31*f*	32								
Unanimis	21	22	23	24	o	–		o	28												
Ophiogramma	–	–	–	o																	
Fibrosa	–	22	o	–	–	o		–	o												
Oculea	21	22	23	24*	25*	26	*l*	27*	28	29*	–	31*f*									
MIANA.																					
Strigilis	21	22	23	24*	25	26	*l*	27*	28	29*	–	–	32*	33*f*							
Fasciuncula	21	22	23	24	25*	–		27*	28	29*	–	31*f*									
Literosa	21	22	23	24	25	–		–	28	o											
Furuncula	21	22	23	24	25	26	*l*	27*	28	29*											
Arcuosa	21	22	23	24	25	–		27*	28	29*s*	–	–	32*								
PHOTEDES.																					
Captiuncula, Tr. [*Expolita.*]	–	–	–	24	o																
CELÆNA.																					
Haworthii	21	22	o	24*s*	25*d*	o		27*	28	o	–	–	32	–	–	35*					
GRAMMESIA.																					
Trilinea	21	22	23	24*	25	26	*l*														
HYDRILLA.																					
Palustris, Hüb.	–	22*																			
ACOSMETIA.																					
Caliginosa																					
CARADRINA.																					
Morpheus	21	22	23	24	o	–		27*	28												
Alsines	21	o	o	o	o																
Blanda	21	22	23	24	–	–		–	28												
Cubicularis	21	22	23	24*	25	26	*l*	27*	28	29	30*	31*f*									
RUSINA.																					
Tenebrosa	21	22	23	24	25	26	*l*	27*	28	29	–	31*f*	32								
AGROTIS.																					
Valligera	21	22	o	24	25	26	*l*	27	28	o	–	31*f*									
Puta	21	–	–	–	–	o															
Suffusa	21	22	23	24*	25*	26	*l*	27	28	29	o	–	32								
Saucia	21	22	23	o	25*s*	26	*l*	–	–	29											
Segetum	21	22	23	24	25	–		27*	28	29*	–	31*f*	32*								
Lunigera	–	–	o	o	–	–		–	28	–	–	o									
Exclamationis	21	22	23	24	25*	26	*l*	27*	28	29*	30*	31*f*	32*								

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Corticea	–	2	3*r*	4	5	6	7	8	9	10	11*	12*s*	13	14	–	–	–	18	–	o
Cinerea	–	–	–	o	5	6	o	–	9	–	–	–	13	14*h*	–	–	–	18*		
Ripæ	1*d*	2	3*r*	–	–	–	–	–	–	–	o	–	–	–	–	o	–	–	–	–
Cursoria	1*d*	o	–	4	–	–	7*k*	o	–	10	11	–	–	14*h*	–	16*	–	18	–	–
Nigricans	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14	15*s*	–	–	–	–	–
Tritici	1*d*	2	3*r*	4*d*	5	6	7	8	9	10	11	o	o	–	–	16	–	–	–	20
Aquilina	–	2	3*r*	4*d*	5	6	7	8	9	10	o	12*s*	13	–	15*	–	–	–	–	o
Obelisca	–	o	–	o	5	6	–	–	–	–	–	–	o	o	–	–	–	–	–	20*c*
Agathina	–	o	–	o	5	6	7	–	9*	10*	–	–	–	–	–	–	–	–	–	–
Porphyrea	–	2	–	4	5	6	7	8*e*	9	10	11	–	13	o	15*s*	–	17*	18*b*	–	20
Præcox	–	2	o	4*d*	–	–	7	–	–	10	11	–	–	–	15*s*	16	–	18	–	–
Ravida	–	–	–	1*d*	–	–	7	8	9	10	11*	12	13*	14	15	–	–	–	–	o
Pyrophila	–	–	–	4	5*o*	–	–	–	9	–	–	–	13*	14	15*	–	–	18*	–	–
Lucernea	–	2	–	o	5	–	7	–	–	o	–	–	–	–	o	o	–	18	–	–
Ashworthii	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	18		
TRYPHÆNA.																				
Ianthina	–	2	3*r*	4*d*	5	6*	7	8	9	10	11	12*	13	14	15	–	17*	–	–	20
Fimbria	o	2	3*r*	4	5	6	7	8	9	10	11	12	13*s*	14	15	–	17*	–	–	20
Interjecta	1*d*	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20
Subsequa	–	–	–	4	5	–	–	–	–	10	–	–	–	–	–	–	–	–	–	20
Orbona	1	2	3*r*	4	5	6	7	8	9	10	11	12*	13	14	15	–	–	18*	–	20
Pronuba	1	2	3*r*	4	5	6	7	8	9	10	11	12*	13	14	15	–	–	–	–	20
NOCTUA.																				
Glareosa	–	2	–	4*	5	6	7	8	–	o	11	–	–	14*h*	–	o	–	–	–	20
Depuncta	–	o	–	–	–	–	–	–	–	10*s*	–	–	–	14*h*	–	–	–	–	–	–
Augur	–	2*	–	1*d*	5	6*	7	8	9	10	11	o	13*g*	14	15	–	–	–	–	20
Plecta	1	2	3*r*	4	5	6	7	8	9	10	11	12*	13	14	15	–	–	–	–	20
Flammatra,Fab.	–	–	–	–	5															
C-nigrum	–	2	3*r*	1*d*	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	–	20
Ditrapezium	–	2	–	4	5	6*n*	7	–	–	–	–	–	–	–	–	–	–	o		
Triangulum	–	2	3*r*	4	5	6	7	8	9	10	11	12*s*	13	14	15	–	–	18*	–	20
Rhomboidea	–	–	–	o	o	o	7	8	9	o	–	–	–	o	–	–	–	–	–	o
Brunnea	–	2*	3*r*	1*d*	5	6	7	8	9	10	11	12*s*	13	14	15	16*	–	–	–	20
Festiva	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13*g*	14*h*	15	16*	–	–	–	20
Conflua	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dahlii	–	2	–	–	5*s*	6	7	–	o	o	o	–	–	–	–	–	–	–	–	20
Subrosea	–	–	–	–	–	–	–	–	9*c*	–	o	12	–	o						
Rubi	–	2	3*r*	1*d*	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20*c*
Umbrosa	–	2	3*	4*d*	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20
Baia	–	2	3*r*	1*d*	5	6	7	8	9	10	11	o	13*g*	14	15	–	–	–	–	20
Sobrina	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Neglecta	–	2	3*r*	4	5	6	7	o	o	–	–	–	–	–	–	–	–	–	–	–
Xanthographa	o	2	3*r*	4	5	6	7	8	9	10	11	12*	13	14	15	–	–	–	–	20
TRACHEA.																				
Piniperda	–	2	3*r*	4*d*	5	6*	7	–	9	10*g*	11	–	–	14	–	–	–	–	–	20
PACHNOBIA.																				
Alpina	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TÆNIOCAMPA.																				
Gothica	–	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	–	18*b*	–	20
Leucographa	–	2	3*r*	–	o	6	7	–	9	10*c*	o	o	o	o	–	–	–	–	–	o
Rubricosa	–	2	3	o	5	6	7	8	9	10	11	12*s*	13	14	15	–	–	18*b*	–	20
Instabilis	–	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	–	18*b*	–	20
Opima	–	–	–	–	–	6*k*	o	–	–	–	o	–	o	o	–	16*	–	–	–	–
Populeti	–	2	3*r*	o	–	–	7	8	9	10	11	12*s*	13	14	15	–	–	–	–	20
Stabilis	–	2	3	4	5	6	7	8	9	10	11	12*s*	13	14	15*	–	–	18*b*	–	20
Gracilis	–	2	3	1*d*	5	6	7	8	9	10*	11	12*s*	13	14	15*	–	–	–	–	20
Miniosa	–	2	3	1*d*	5	6	7	8	9	–	o	–	13	14	–	–	–	–	–	–
Munda	–	2	3	1*d*	5	6	7	8	9	10	11	12	13	14	15	16*	–	18*b*	–	20
Cruda	–	2	3	1*d*	5	6	7	8	9	10	11	–	13	14	15*	16*	–	18*b*	–	20

Corticea	21	22	o	24*	25	26*l*	–	28	–	–	o						
Cinerea																	
Ripæ	–	–	–	–	25												
Cursoria	21	–	–	24	25	–	27	28	–	–	o						
Nigricans	21	22	23	24	o	26*l*	27*	28	29*s*	–	31*f*						
Tritici	21	22	23	24	25	26*l*	27	28	–	–	31*f*						
Aquilina	21	22	o	o	–	–	–	–	o								
Obelisca	21*b*	22	–	–	–	o	–	28									
Agathina	21	22	o	–	–	–	–	–	29	o	31*						
Porphyrea	21	22	23	24	25	26*l*	27	28	29	–	31*f*	–	33*f*				
Præcox	21	o	–	–	25	–	27	28	–	–	31*						
Ravida	–	22	o	24	–	–	–	28									
Pyrophila	21	22	–	o	25	–	o	28	–	–	31*f*						
Lucernea	–	–	–	–	o	26*l*	–	28	o	–	–	32					
Ashworthii																	
TRYPHENA.																	
Ianthina	21	22	23	24*	25	26*l*	27	28	29	30*	31*f*	32*					
Fimbria	21	22	23	24	25	26*l*	27*	28	29	–	31	32	33*f*				
Interjecta	21	22	23														
Subsequa	–	–	–	o	o												
Orbona	21	22	23	24	25	26	27	28	29*	30*	31	32*					
Pronuba	21	22	23	24	25	26	27*	28	29*	30*	31*f*						
NOCTUA.																	
Glareosa	21	22	23	24*	25	26*l*	–	28	29	–	o	32	o	–	35*		
Depuncta	21*s*	22	o	–	25	–	–	–	–	–	31						
Augur	21	22	23	24	25	26*l*	27*	28	29*a*	–	31*f*	32*					
Plecta	21	22	23	24	25	26*l*	27*	28	29	–	31*f*	32*					
Flammatra, Fab.																	
C-nigrum	21	22	23	24	25*	–	27*	28	29	30*	31*f*	32*					
Ditrapezium																	
Triangulum	21	22	23	24*s*	o	–	o	o	o	–	–	o					
Rhomboidea	–	22*s*	o	o	o	o											
Brunnea	21	22	23	24	25	26*l*	27*	28	29*	–	31*f*	32					
Festiva	21	22	23	24	25	26*l*	27*	28	29	–	31*f*						
Conflua	–	–	–	–	o	–	–	–	29	–	–	–	–	–	o		
Dahlii	21	22	23	–	25	–	–	o	–	–	–	o					
Subrosea																	
Rubi	21	22	23	–	25	–	27*	28	–	–	o						
Umbrosa	21	22	23	24	25*	26*l*	27*	28	29*	–	31*f*						
Baia	21	22	23	24*	25	–	27*	28	29	–	31*f*	32*					
Sobrina	–	–	–	–	–	–	–	–	29								
Neglecta	–	22	23	o	25	–	–	–	o								
Xanthographa	21	22	23	24*	25	–	27*	28	29	30*	31*f*	32*					
TRACHEA.																	
Piniperda	21	22	23	–	25	26*l*	27*	28	29	–	31						
PACHNOBIA.																	
Alpina	–	–	–	–	–	–	–	–	29								
TÆNIOCAMPA.																	
Gothica	21	22	23	24*	25*	26*l*	27*	28	29	30*	31*f*	–	–	34*			
Leucographa	–	22	23	–	25												
Rubricosa	21	22	23	24	25*	26*l*	–	28	29	–	31*f*	32					
Instabilis	21	22	23	–	25*	26*l*	27*	28	29	–	31*f*						
Opima	21	22	23	–	25	o											
Populeti	21	22	23	–	25	o	–	–	–	–	–	o					
Stabilis	21	22	23	24*	25*	26*l*	27*	28	29	–	31*f*						
Gracilis	21	22	23	24	25	26*l*	–	o	–	–	–	o					
Miniosa	–	22	23	–	25												
Munda	21	22	23	–	25	26*l*											
Cruda	21	22	23	–	25*	–	–	–	o								

ORTHOSIA.																			
Suspecta	–	–	–	–	–	–	o	–	–	–	o	–	–	–	–	–	–	–	20
Upsilon	–	2	–	o	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20
Lota	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14	15*	–	–	–	–	20
Macilenta	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14*h*	15*s*	–	–	–	–	20
ANCHOCELIS.																			
Rufina	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12*	13	14	15	16*	–	–	–	20
Pistacina	–	2	3	4*d*	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	–	20
Lunosa	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15*s*	16*	–	18*	–	20
Litura	–	–	3	4*d*	5	6	7	8	9*c*	10	11	12	13	14	15	16*	–	–	–	20
CERASTIS.																			
Vaccinii	–	2	3	4*d*	5	6	7	8	9	10	11	12*	13	14	15	16*	–	18*b*	–	20
Spadicea	–	2	3	4*d*	5	6	7	8	9	10	11	12	13	14*h*	15	–	–	–	–	20
Erythrocephala	–	2	3*r*	–	–	6	7	–	9*	–	–	–	–	–	–	–	–	–	–	o
SCOPELOSOMA.																			
Satellitia	–	2	3	4	5	6	7	8	9	10	11	12*	13	14	15*	16*	–	18*b*	–	20
DASYCAMPA.																			
Rubiginea	–	2	3	–	5	6	7	–	9*	–	o	–	13	14						
OPORINA.																			
Croceago	–	2	3*r*	4*d*	5	6	7	–	9	–	o	–	o	14	–	o	–	–	–	–
XANTHIA.																			
Citrago	–	2	3*r*	4*d*	o	6	7	8	9*g*	10	11	–	13	14	15	–	–	–	–	20
Cerago	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14*h*	15	16*	–	–	–	20
Silago	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14*h*	15	16*	–	–	–	20
Aurago	–	o	o	o	5	6	7	8	9	10	11	–	13	14	–	–	–	–	–	–
Gilvago	–	–	–	–	5	–	–	–	o	–	o	o	–	14*h*	15	–	–	–	o	20
Ferruginea	–	2	3*r*	4*d*	5	6	7	8	9	10	11*	12	13	14	15	–	–	–	–	20
CIRRHŒDIA.																			
Xerampelina	–	o	o	4*d*	5	6	7	–	9	10	–	12	13	14	15	–	–	–	–	20
TETHEA.																			
Subtusa	–	2	3	–	5	6	7	8	9	10	11	12*s*	13	14	15	o	–	–	–	20
Retusa	–	2	o	4*d*	5*o*	6	7	8	9	–	o	12*s*	–	14	o	16*	–	–	–	20*g*
EUPERIA.																			
Fulvago	–	–	–	–	–	–	o	–	–	–	–	–	–	–	–	–	–	–	–	20
DICYCLA.																			
Oo	–	–	–	–	5	–	7	8	o	10*s*	–	12*d*	–	14						
COSMIA.																			
Trapezina	–	2	3*r*	4	5	6	7	8	9	10	11	12	13*g*	14	15	–	–	–	–	20
Pyralina	–	o	–	4	5	6	7	–	9	10	–	o	–	o	o					
Diffinis	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15	–	–	–	–	20*
Affinis	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14	15*s*	–	–	–	–	20
EREMOBIA.																			
Ochroleuca	–	–	3*r*	4	5	6	7	8	–	10	o	o	13*s*	–	–	–	–	–	–	o
DIANTHŒCIA.																			
Carpophaga	–	2	3*r*	o	5	6	7	8	9	10	11	12	13	–	15	–	–	18	–	20*c*
Capsophila,Bdv.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	o	–	–
Capsincola	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	11	12*s*	13*s*	14	15	–	–	–	–	20
Cucubali	1*n*	2	3*r*	–	5	6	7	8	9	10	11	12*s*	–	14	15	–	–	–	–	20*c*
Conspersa	1*n*	2	–	4*d*	5	6	7	8	9	–	o	12*s*	–	–	–	–	–	–	–	20*c*
Barrettii, Dbl.																				
Cæsia, W. V.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
HECATERA.																				
Dysodea	–	–	3*r*	4*d*	–	6*	7	8	–	10	11	12*s*	–	o						
Serena	–	2	3*r*	o	5	6	7	8	9	10	o	12	–	14*h*	15	–	–	–	–	20
POLIA.																				
Chi	–	2	–	–	–	–	–	–	9*	10*s*	o	–	–	14*h*	15	–	–	–	–	20
Flavicincta	–	2	3	o	5*o*	6	7	8	9	10	11	12	13	14	15*a*	–	–	–	–	20
Nigrocincta,Och.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DASYPOLIA.																				
Templi	–	2	3	–	5	–	–	–	–	–	–	–	13	–	o	–	–	–	–	20*c*

ORTHOSIA.																	
Suspecta	21*s*	22	23	–	25	–	–	28	o								
Upsilon	21	22	23	24*													
Lota	21	22	23	24*	25*	26*l*	27*	o	–	–	–	32*					
Macilenta	21	22	23	24	25	26*l*	–	–	o	o	–	32*					
ANCHOCELIS.																	
Rufina	21	22	23	–	25	26*l*	–	28	29	o	–	32*	–	–	35*		
Pistacina	21	22	23	–	–	26*l*											
Lunosa	21	22*s*	23	24	25	26*l*	27*	28									
Litura	21	22	23	24*	25*	26*l*	27	28	29	–	31*f*						
CERASTIS.																	
Vaccinii	21	22	23	24*	25*	26*l*	27*	28	29*	–	31*f*	32*	33*f*				
Spadicea	21	22	23	24	25	26*l*	–	–	o	o							
Erythrocephala																	
SCOPELOSOMA.																	
Satellitia	21	22	23	24	25*	26*l*	27*	28	29	–	31*f*	32*					
DASYCAMPA.																	
Rubiginea																	
OPORINA.																	
Croceago	–	o															
XANTHIA.																	
Citrago	21	22*s*	23	o	o	o											
Cerago	21	22	23	24	25	26*l*	27*	28	29	–	31*f*	32*					
Silago	21	22	23	24	25	–	o	28	o	–	31*f*						
Aurago	–	o	o														
Gilvago	–	22	23	o	–	–	–	–	–	–	–	–	–	–	o		
Ferruginea	21	22	23	–	25*	–	27*	28	29	30*	31*f*						
CIRRHŒDIA.																	
Xerampelina	–	22	–	24*s*	25	–	–	–	o	–	–	o					
TETHEA.																	
Subtusa	21	22*s*	23	–	25	–	o	–	–	–	–	o					
Retusa	–	22	–	–	–	–	o										
EUPERIA.																	
Fulvago	–	–	o	–	25												
DICYCLA.																	
Oo																	
COSMIA.																	
Trapezina	21	22	23	–	25*	26*	27*	28	29*	–	31*f*	–	33*f*				
Pyralina																	
Diffinis	–	o	23														
Affinis	–	o	23														
EREMOBIA.																	
Ochroleuca	–	22	o														
DIANTHŒCIA.																	
Carpophaga	21*	22	23	24*	25	–	–	28									
Capsophila, Bdv.	–	–	–	–	25												
Capsincola	21	22	23	24	25	–	27*	28	o								
Cucubali	21	22	23	24	25	–	27	28	29	–	31*f*	o	33*f*				
Conspersa	21	22	–	o	25	26*l*	27*	28	–	–	–	32					
Barrettii, Dbl.																	
Cæsia, w. v.	–	–	–	–	25												
HECATERA.																	
Dysodea																	
Serena	–	o	o	o													
POLIA.																	
Chi	21	22	23	24	25	26	27*	28	29	–	31*f*	32					
Flavicincta	–	22	23	24													
Nigrocincta, Och.	–	–	–	–	25*												
DASYPOLIA.																	
Templi	21	22	23	–	o	–	–	–	o								

EPUNDA.																			
Lutulenta	o	o	3*r*	–	5	6	7	–	–	–	–	12*s*	13*	o	–	–	–	–	–
Nigra	–	2	3*r*	–	5	6	7*a*	–	–	–	–	12*k*	–	–	–	16	–	–	–
Viminalis	–	2	–	4*d*	5	6	7	8	9	1 0	11	12*s*	13	14	15	16*	–	–	20
Lichenea.....	o	2	–	4	5	–	–	–	–	–	o	–	o	–	–	–	–	–	–
VALERIA.																			
Oleagina.....	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	17		
MISELIA.																			
Oxyacanthæ ...	–	2	3	4*d*	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	–	20
AGRIOPIS.																			
Aprilina	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14*h*	15	–	–	–	–	20
PHILOGOPHORA.																			
Meticulosa	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16*	17*d*	–	19*	20
Empyrea	–	–	–	–	–	6														
EUPLEXIA.																			
Lucipara.....	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13*g*	14	15	16*	–	–	–	20
APLECTA.																			
Herbida	1*h*	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14	15*	16	–	18*	–	20
Occulta	–	–	–	–	5	6	7	8	–	–	o	–	–	–	–	o	–	–	–	o
Nebulosa.....	o	2	3*r*	4	5	6	7	8	9	10*c*	11	–	13	14*h*	15	–	–	–	–	20
Tincta	–	o	–	–	o	6	7	8	9	–	–	–	13*g*	14	15*	–	–	–	–	o
Advena	–	2	–	4	5	6	7	8	9	10	11	12	13	14	–	–	–	–	–	–
HADENA.																			
Satura.....	–	–	–	–	–	–	–	–	9	–	–	12*s*	–	–	–	–	–	–	–	–
Adusta.....	–	2	o	4*d*	5*o*	6	7	8	9	10	11	12*s*	13	14	15	16*	–	–	–	20
Protea	–	2	3*r*	4*d*	5	6*	7	8	9	10	11	–	13	14	15*	–	–	–	–	20
Glauca.....	–	–	–	–	–	–	–	–	–	10*s*	o	–	o	14*h*	15	–	–	–	–	o
Dentina	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14	15	–	–	–	–	20
Peregrina	–	–	–	–	5															
Chenopodii.....	–	2	3*r*	4*d*	5*o*	6	7	8	9*s*	–	o	12*s*	13*s*	o	15	–	–	–	–	–
Atriplicis	–	–	–	–	–	–	–	o	9*g*	10*	11*	12	–	–	–	–	–	–	–	–
Suasa	–	–	3*r*	–	5	6*	7	8	–	10	11	12	13	14	15	–	–	–	–	20*c*
Oleracea.....	1*h*	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	–	20
Pisi	–	2	3*r*	4*d*	5*o*	6	7	8	9	10	11	12*s*	13	14	o	16*	–	o	19*	20
Thalassina	1*h*	2	3*r*	4*d*	5*o*	6	7	8	9	10	11	–	13*g*	14	15	16*	17*	–	–	20
Contigua	–	–	–	o	5	6	7	–	9	–	–	12	13*g*	14*h*	o	16	–	–	–	o
Genistæ	–	2	o	–	5	6	7	8	9	10*	–	12	13	14	–	–	o	–	–	o
Rectilinea	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
XYLOCAMPA.																			
Lithorhiza	–	2	3	4*d*	5	6	7	8	9	10	11	12	13	14	15*s*	–	–	–	–	20*c*
CLOANTHA.																			
Perspicillaris...	–	–	–	–	5	–	–	–	–	–	11									
Solidaginis.....	–	–	–	–	–	–	o	–	–	–	–	–	–	–	o	–	–	–	–	–
CALOCAMPA.																			
Vetusta	–	2	3*r*	4*d*	5	6	7	8	9*c*	10*c*	11	12*s*	13	–	15	–	–	–	–	20
Exoleta	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14	15	16*	–	18*b*	–	20
XYLINA.																				
Conformis, W. V.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	16				
Rhizolitha	–	2	3	4*d*	5	6	7	8	9	10	11	12*s*	13	14	15*s*	16*	–	18*	–	–
Semibrunnea ...	–	2	3	4*d*	5	o	7	o	9	10*c*	–	12*s*	13	14	–	–	–	–	–	–
Petrificata	–	2	3	4*d*	5	6	7	–	–	–	–	o	13	14	–	16*	–	–	–	–
Zinckenii, Tr...	–	–	–	–	–	–	7													
CUCULLIA.																				
Verbasci.....	1*n*	2	3	4	5	6	7	8	9	10	11	12	13	14	–	–	–	–	–	20
Scrophulariæ...	–	2	o	4*d*	–	6	7*	8	–	–	o	o								
Lychnitis	–	o	–	–	–	o	7	–	9	–	o									
Asteris	–	–	–	o	–	6	7	–	o											
Gnaphalii	–	–	–	–	o	6	7													
Absinthii	–	2	–	4*d*	5	–	–	–	–	10*c*	–	–	–	–	–	–	–	–	–	–
Chamomillæ ...	–	2	–	4*d*	5	6	7	8	o	10	–	–	–	14	–	–	–	–	–	o

EPUNDA.																	
Lutulenta	21	o	o	o	o	–	–	–	–	–	o						
Nigra	o	o	o	o	25	–	–	–	–	–	31	o					
Viminalis	–	22	23	o	o	–	–	28	o	–	–	o					
Lichenea	21	o															
VALERIA.																	
Oleagina																	
MISELIA.																	
Oxyacanthæ	21	22	23	24*	25*	26*l*	27	28	29	–	31*f*	32*					
AGRIOPIS.																	
Aprilina	21	22	23	24*	25	–	27	28	29	–	31*f*	32*					
PHLOGOPHORA.																	
Meticulosa	21	22	23	24	25	26*l*	27*	28	29*	30*	31*f*						
Empyrea																	
EUPLEXIA.																	
Lucipara	21	22	23	24	25	26*l*	27*	28	29	–	31*f*	32					
APLECTA.																	
Herbida	21	22	23	24	25	26	27	–	29	–	–	32					
Occulta	21	o	23	c	25*s*	–	27*	28	29	–	–	–	–	o	o		
Nebulosa	21	22	23	24	25	26*l*	–	–	29	30*	31*f*	32*					
Tincta	o	–	–	–	o	–	–	–	29	–	–	32*	–	–	o		
Advena	–	22	23	24*s*	25	26*l*	–	28	29								
HADENA.																	
Satura	–	–	–	–	–	–	–	–	o								
Adusta	21	22	23	24	25	26	27	28	29	–	31*f*	32	–	–	35*		
Protea	21	22	23	–	25*	26*l*	27	28	o								
Glauca	21	–	23	–	25	–	–	28	29	–	31*f*	32*	–	–	o		
Dentina	21	22	23	24	25	26*l*	27	28	29*	–	31*f*	32					
Peregrina																	
Chenopodii	–	–	o	o	o	–	–	o									
Atriplicis	o																
Suasa	21	22	23	o	–	–	o										
Oleracea	21	22	23	24	25*	26*l*	27	28	29*	–	31*f*						
Pisi	21	22	23	24	25	26	27	28	29	–	–	–	33*				
Thalassina	21	22	23	24	25	26*l*	27*	28	29	–	31*f*	32*					
Contigua	21*b*	o	–	–	25	–	o	–	29	–	–	32*					
Genistæ	–	o	–	o	–	–	o										
Rectilinea	–	–	23	–	o	–	–	–	29	–	31*f*	32*	–	–	o		
XYLOCAMPA.																	
Lithorhiza	21	22	23	24*s*	25	–	27*										
CLOANTHA.																	
Perspicillaris																	
Solidaginis	21	22	o	–	–	o	–	–	–	–	–	o	–	–	o		
CALOCAMPA.																	
Vetusta	21	22	23	–	25	–	27*	28	29	30	31*f*	32*	33*f*	o			
Exoleta	21	22	23	24	25	26*l*	27	28	29	30	31*f*						
XYLINA.																	
Conformis, W. V.																	
Rhizolitha	21	22															
Semibrunnea	–	–	–	–	–	o											
Petrificata	–	–	–	–	25	26*l*											
Zinckenii, Tr.																	
CUCULLIA.																	
Verbasci	–	–	o														
Scrophulariæ																	
Lychnitis																	
Asteris																	
Gnaphalii																	
Absinthii	–	–	–	o													
Chamomillæ	21	o	–	–	o	–	o	28									

Umbratica	–	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20
HELIOTHIS.																				
Marginatus.....	–	2	3*r*	–	5*o*	6	7	8*e*	9	10*c*	11	12*s*	13	14	15	–	–	–	–	–
Peltiger	–	2	3	4*d*	5	6	7	–	–	–	–	12	13	–	o	16*	–	–	–	–
Armiger	–	2	3*r*	4*d*	5	6	7	8	9*m*	–	–	o	–	–	–	–	–	–	–	–
Dipsaceus	–	–	–	4	5	–	7	–	o	10	–	o	o	o	–	–	–	–	–	o
ANARTA.																				
Melanopa	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cordigera	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Myrtilli	–	o	–	4	5	6	7	–	9	10*	11	o	–	o	15	–	–	18*z*	–	20
HELIODES.																				
Arbuti.....	–	2	3	4	5	6	7	8	9	10	o	12*	13	14	15	–	–	–	–	20
AGROPHILA.																				
Sulphuralis.....	–	o	–	–	–	–	7	–	–	10	–	12								
ACONTIA.																				
Luctuosa.....	–	2*	3*r*	4	5	6	7	–	9*	10	–	o	13							
Solaris, W. V. ...	–	–	–	–	–	6														
ERASTRIA.																				
Venustula	–	–	–	–	–	6*w*	–	8												
Fuscula	1*h*	2	3*r*	4*d*	5	6	7	8	9	10	o	–	13*s*	14	–	16*	17*	–	–	20*
BANKSIA.																				
Argentula	–	–	–	–	–	–	–	–	–	o	11*s*	12*s*								
HYDRELIA.																				
Unca	–	–	3*r*	–	–	–	o	–	–	10	11	12	–	–	–	16*	–	–	–	–
MICRA.																				
Ostrina	–	2	–	–	5	–	–	–	–	–	–	–	–	–	–	–	o	–	–	–
Parva	–	2	3*r*																	
BREPHOS.																				
Parthenias	–	–	o	–	–	6	7	8	o	10	o	–	13	14	15	–	–	–	o	20
Notha	–	–	–	–	5*o*	6	7	8	9*d*	10	o	–	o	14	–	–	–	–	–	–
HABROSTOLA.																				
Urticæ.....	–	2	3	4	5	6	7	8	9	10	11	12*s*	13	14	15	–	–	–	–	20
Triplasia.....	–	2	3*r*	4*d*	5	6	7	8	9*g*	10	11	12*s*	13	14	15	–	–	–	–	20
PLUSIA.																				
Orichalcea	–	o	–	1*d*	–	–	7	–	o	–	o	–	13							
Chrysitis.....	1	2	3*r*	1*d*	5	6	7	8	9	10	11	12*	13	14	15	–	–	–	–	20
Bractea	–	–	–	–	–	–	o	–	–	–	–	–	–	14	15	–	–	–	–	–
Festucæ	–	–	3*r*	4	5	–	7	8	o	10	11	12	–	o	o	16	–	–	–	20*c*
Iota	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	o	20
V-aureum	–	2	3*r*	1*d*	5*o*	6	7	8	9	10	o	12*s*	13	14	15	–	–	–	–	20
Gamma	1	2	3	4	5	6	7	8	9	10	11	12*	13	14	15	–	–	–	–	20
Interrogationis.	–	–	–	–	–	–	–	–	–	–	o	–	–	–	15	–	–	18*s*	–	20
GONOPTERA.																				
Libatrix	1*	2	3*r*	4	5	6	7	8	9	10	11	12*	13	14	15	–	–	–	–	20
AMPHIPYRA.																				
Pyramidea	–	2	–	1*d*	5	6	7	8	9	10	11	12	13	14	15	16*	–	–	–	20
Tragopogonis...	–	2	3*r*	1*d*	5	6	7	8	9	10	11	12*	13	14	15	16*	–	–	–	20
MANIA.																				
Typica.....	–	2	3*r*	4	5	6	7	8	9	10	11	o	13	14*h*	15	–	–	–	19*	20
Maura.....	–	2	3*r*	4	5	6	7	8	9	10	11	–	13	14	15	–	–	–	–	20
TOXOCAMPA.																				
Pastinum	–	2	3	4*d*	5	6	7	–	o	10*s*	11	–	–	–	–	–	–	–	–	–
Craccæ, W. V....	–	2																		
STILBIA.																				
Anomala	1*d*	2	–	4	5	6	7	–	–	–	–	–	–	–	–	–	–	18	–	20
CATEPHIA.																				
Alchymista.....	–	–	–	–	5															
CATOCALA.																				
Fraxini	–	–	o	o	5	6	7	o	–	o	11	–	–	–	15	–	–	–	–	–
Nupta	–	2	3	4*d*	5	6	7	8	9	10	11	12	13	14	–	–	–	–	–	20

Umbratica	21	22	23	24	25	26*l*	27	28	29*	–	–	32	33				
HELIOTHIS.																	
Marginatus.....	21	22	–	24	o												
Peltiger	21	–	o	o	–	–	o										
Armiger	21	o	–	–	o												
Dipsaceus	–	22	23														
ANARTA.																	
Melanopa	–	–	–	–	–	–	–	–	29								
Cordigera	–	–	–	–	–	–	–	–	29	–	o						
Myrtilli	21	22	23	24	25	26	27	28	29	30*	31*f*	o					
HELIODES.																	
Arbuti	21	22	23	24	25 *s*	–	o										
AGROPHILA.																	
Sulphuralis																	
ACONTIA.																	
Luctuosa.....																	
Solaris, W.V.																	
ERASTRIA.																	
Venustula																	
Fuscula	–	o	–	–	–	–	–	–	–	–	–	–	–	o			
BANKSIA.																	
Argentula																	
HYDRELIA.																	
Unca	–	22	23	–	25	o											
MICRA.																	
Ostrina	–	–	–	–	–	–	o										
Parva																	
BREPHOS.																	
Parthenias	–	22	23	–	25	–	–	–	29	–	31*f*						
Notha	–	22	–	–	o												
HABROSTOLA.																	
Urticæ.....	21	22	23	24*	25	26	27*	28	29*	–	31*f*	32					
Triplasia.....	21	22	23	–	25	26*l*	27*	28 *z*									
PLUSIA.																	
Orichalcea																	
Chrysitis	21	22	23	24	25	26	27*	28	29	–	31*f*	32*					
Bractea	21	o	23 *s*	–	25	26	27	o	29	o	31*f*	32	33*f*				
Festucæ	21	22	23	24*	25	26	27*	28	29	30*	31*f*						
Iota	21	22	23	24	25	26*l*	27	28	29*	30*	–	32*	33*f*				
V-aureum	21	22	23	24	25	–	27*	28	29	–	31*f*	32*					
Gamma	21	22	23	24	25*	26*l*	27*	28	29	30*	31*f*						
Interrogationis..	21	22	23	24 *s*	25	–	o	o	29	o	–	32	–	–	35*		
GONOPTERA.																	
Libatrix	21	22	23	24	25	26*l*	27	28	29	30*	31*f*	o					
AMPHIPYRA.																	
Pyramidea	21 *s*	22 *s*	23														
Tragopogonis...	21	22	23	24*	25	–	27*	28	29*	–	31*f*						
MANIA.																	
Typica.....	21	22	23	24	25*	–	27	28	29*	30*	31*f*	32*					
Maura	21	22	23	24	25*	–	27	28	29*	30*							
TOXOCAMPA.																	
Pastinum.....	–	22	23														
Craccæ, W.V. ...																	
STILBIA.																	
Anomala.....	21 *s*	–	o	–	25	o	–	o	29	–	–	32	–	–	o		
CATEPHIA.																	
Alchymista.....																	
CATOCALA.																	
Fraxini	o	22	–	o													
Nupta																	

Promissa	–	–	–	4*d*	5	6	7	8*e*	o	–	o	–	–	o	–	–	–	–	o	
Sponsa	–	–	–	–	5	6	o	–	9	–	o									
OPHIODES.																				
Lunaris	–	–	–	–	5*s*	–	7													
EUCLIDIA.																				
Mi	1*n*	2	3*r*	4	5*o*	6	7	8	9	10	11	12	13	14	15	–	–	18*z*	–	20
Glyphica	1*n*	2	3*r*	4*d*	5	6	7	8	9	10	11	12	13	14	15	–	–	18	–	20
PHYTOMETRA.																				
Ænea	1*n*	2	3*r*	4	5	6	7	8	9	10*	11	12	13	14	15	–	–	18*z*	–	20*c*
Deltoidæ.																				
MADOPA.																				
Salicalis	–	–	–	–	–	–	7													
HYPENA.																				
Proboscidalis	1*n*	2	3*r*	4	5	6	7	8	9	10	11	12*	13*y*	14	15	–	17*	–	–	20
Rostralis	–	2	3*r*	–	5	6	7	8	9	10	11	12*s*	–	14	–	–	–	–	–	–
Crassalis	1	2	–	–	–	6*a*	7	–	–	–	11	–	o	–	15	–	–	–	–	20*g*
HYPENODES.																				
Albistrigalis	1	2	–	4*d*	5	6	7	8	9	–	11	–	13	14	–	–	–	–	–	–
Costæstrigalis	1*	2	–	4	5	6*	7	8*e*	9	10	11	12*s*	o	14	15*	–	–	–	–	20*s*
SCHRANKIA.																				
Turfosalis	–	–	–	o	5*s*	–	7*s*	–	–	–	–	–	–	o	–	–	–	–	–	–
RIVULA.																				
Sericealis	–	2	3*r*	4	5*o*	6	7	8	9	10	11	12*s*	13	14*h*	15	–	–	–	–	20*c*
SOPHRONIA.																				
Emortualis	–	–	–	–	–	6	–	8	9*											
HERMINIA.																				
Derivalis	–	–	–	–	–	6	7	–	–	–	o	–	–	–	–	–	–	–	–	–
Barbalis	–	2*m*	3*r*	4*d*	5	6	7	8	9	10	11*	12*s*	–	14	15*	–	–	–	–	20*c*
Tarsipennalis	–	2	–	4*d*	5	6	7	8	9	10	11	12*s*	13	14*h*	15	–	17*	18*s*	–	20
Grisealis	–	2	3	4*d*	5*	6	7	8	9	10	11	–	13	14*h*	15	–	17*	–	–	20
Cribralis	–	–	–	–	–	6	–	8	–	–	11	12								
Aventiæ.																				
AVENTIA.																				
Flexula	–	2*s*	–	4	5	6	7	8	9	10	–	12	o	14*h*	–	–	–	–	–	–
Pyralides.																				
ODONTIA																				
Dentalis	–	o	–	–	–	6	7	–	–	–	o									
PYRALIS.																				
Fimbrialis	–	–	–	–	5	6	7	8	9*s*	10	11	–	–	–	–	–	o	–	–	–
Farinalis	–	2	3*r*	4	5	6	7	8	9*c*	10	11	12*	–	14	15	–	17*	–	–	20
Glaucinalis	–	–	–	–	–	6	7	8	9	10	11	–	–	–	15*	–	–	–	–	20*c*
AGLOSSA.																				
Pinguinalis	–	2	3	4	5	6	7	8	9*c*	10	11	–	13*z*	14*h*	15	–	17*	–	–	20*c*
Cuprealis	–	2	–	o	–	–	7	8	–	–	o	12								
CLEDEOBIA.																				
Angustalis	–	2	–	4	5	6	7	8	–	–	11	–	–	–	–	–	–	–	–	20*g*
PYRAUSTA.																				
Punicealis	1*h*	2	3*r*	4	5	6	7	–	9	10	11*	12	13	–	–	–	17*	18*s*	–	20*c*
Purpuralis	–	2	3	4	5	6	7	8	9	10	11	12	13	14	15*	–	17*	–	o	20*c*
Ostrinalis	–	2*m*	3*r*	4*d*	5*o*	6	7	8	9	–	11*	12	o	–	15*a*	–	–	o	–	20*c*
RHODARIA.																				
Sanguinalis	–	–	–	–	–	–	–	–	–	–	o	–	–	–	–	–	–	–	–	–
HERBULA.																				
Cæspitalis	1*h*	2	3*r*	4	5	6	7	8	9	10	11*	–	o	–	–	–	–	–	–	20*c*
ENNYCHIA.																				
Cingulalis	–	2	–	4	5	6	7	–	9	–	o	12*s*	o	–	15*	–	–	18	–	20*c*
Anguinalis	–	2*m*	3*r*	4*d*	5*d*	6	7	8	9*g*	–	o	12*s*	13	–	–	–	–	–	–	–

Promissa													
Sponsa													
OPHIODES.													
Lunaris													
EUCLIDIA.													
Mi	21	22	23	24	25	26	27	28	29	30*	–	32	
Glyphica.....	21	22	23	24	25	26*l*	27	o	29*	–	–	32*	
PHYTOMETRA.													
Ænea	21	22	23	24	25	26*l*	27*	28	29	–	31*f*	32	
Deltoidæ.													
MADOPA.													
Salicalis.....													
HYPENA.													
Proboscidalis...	21	22	23	–	25*	–	27*	28	29*	–	31*f*		
Rostralis.....	o												
Crassalis.....													
HYPENODES.													
Albistrigalis ...	–	22*s*											
Costæstrigalis..	21	22	–	–	25	–	–	–	–	–	–	o	
SCHRANKIA.													
Turfosalis	21	–	–	–	25								
RIVULA.													
Sericealis	21	22	–	–	25	–	–	–	–	–	–	32*	
SOPHRONIA.													
Emortualis.....													
HERMINIA.													
Derivalis.....	o												
Barbalis	–	22											
Tarsipennalis...	21*b*	22	23	–	25*	–	27*						
Grisealis.....	21	22	23	–	25*								
Cribralis.....													
Aventiæ.													
AVENTIA.													
Flexula	–	22											
Pyralides.													
ODONTIA.													
Dentalis													
PYRALIS.													
Fimbrialis	–	o											
Farinalis.....	21	o	23	–	–	–	27	28*	29*				
Glaucinalis	21*	22											
AGLOSSA.													
Pinguinalis.....	21	22	23	–	–	–	27*	28*	29*	–	31*f*	32*	
Cuprealis													
CLEDEOBIA.													
Angustalis	–	–	o										
PYRAUSTA.													
Punicealis	21*	22	23	24	25*s*	26*l*	27*	28*d*	29*a*	–	–	32*	
Purpuralis	21	22	23	24*s*	25	26*l*	27*	–	29*a*	–	–	32*	
Ostrinalis	21	22	23*	24*s*	25*s*	–	o	28	29*z*				
RHODARIA.													
Sanguinalis.....	21	–	–	–	–	–	o						
HERBULA.													
Cæspitalis	21	–	23*	–	25*	–	27	28	29*	–	–	32*	
ENNYCHIA.													
Cingulalis	21	–	–	24*s*	25	–	–	28	29*	–	31	32*	
Anguinalis	–	–	–	–	25*s*								

Octomaculalis..	–	2 *s*	–	–	–	6	7	8*	9	10	–	–	–	14	o	–	–	18	–	–
AGROTERA.																					
Nemoralis	–	–	–	–	–	6	o														
ENDOTRICHA.																					
Flammealis	1*h*	2	3*r*	4	5	6	7	8	9	o	–	12*s*									
DIASEMIA.																					
Literalis	–	2	–	–	5	o	7	–	–	10*c*	–	–	13	–	–	–	–	–	–	20*c*
Ramburialis ...	1	–	–	–	–	6*															
NASCIA.																					
Cilialis	–	–	–	–	–	–	–	–	–	–	o	12									
STENIA.																					
Punctalis	1	2	3*r*	4	5	–	o	–	–	–	11										
CATACLYSTA.																					
Lemnalis.....	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	o	14*h*	15	–	17*	–	–	20*c*
PARAPONYX.																					
Stratiotalis.....	–	2	3*r*	4	5	6	7	8	9	10	11	12	13	14*h*	15	–	–	–	19*d*	20*c*
HYDROCAMPA.																					
Nymphæalis ...	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12*	13	14*h*	15	–	–	–	–	20*c*
Stagnalis	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12*	13*	14*h*	15	–	–	–	–	20*c*
BOTYS.																					
Lupulinalis	–	–	–	–	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Pandalis	–	–	3*r*	o	5	6*s*	7	–	9	10*c*	–	–	13*s*	14*h*	–	–	–	–	–	–	
Flavalis	1*h*	–	–	4	5	6	7	–	9*s*	–	o	–	–	–	–	o					
Hyalinalis	–	–	–	–	5	6	7	–	9	–	11*	–	13	o							
Verticalis	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12*	13	14	15	–	17	–	–	20*c*	
Lancealis	1	2	–	–	5	6	7	o	–	10	11	–	13	14*h*	–	16*h*					
Fuscalis	–	2	3*r*	4*d*	5	6	7	8	9	10	11	–	13	14*h*	15	–	–	–	–	20*c*	
Terrealis.....	–	2	–	–	–	–	o	–	–	–	–	–	–	–	–	–	–	18	–	–	
Asinalis	–	2	3	4	5	–	–	–	–	–	o	–	13	–	–	–	–	18*s*			
Urticalis.....	–	2	3*r*	4	5	6	7	8	9	10	11	12*	–	14	15	–	17*	o	–	20	
EBULEA.																					
Crocealis.....	1*h*	2	3*r*	4	5*o*	6	7	8	9	10	11	12*s*	o	14*h*	15*	–	17*	–	–	20*c*	
Verbascalis.....	–	–	–	–	5	–	7	8	–	10*s*	11	–	–	–	–	–	–	–	–	–	
Sambucalis.....	–	2	3*r*	4	5*o*	6	7	8	9	10	11	–	–	14*h*	15	–	–	–	–	20*c*	
Catalaunalis,Dp.	–	–	–	–	–	–	–	8*													
PIONEA.																					
Forficalis	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12*	13*y*	14	15	–	17*	–	–	20	
Margaritalis ...	–	o	–	–	5	6*w*	7	–	–	–	11	12									
Stramentalis ...	–	–	–	–	5	6	7	–	9*	10	11	–	–	14							
SPILODES.																					
Sticticalis	–	2	–	4	5	6	7	8*e*	–	10	–	–	o	–	–	–	–	–	–	20	
Palealis	–	o	–	–	5	6	7	o	–	o	o										
Cinctalis	–	2	3*r*	4*d*	5	6	7	8	9	10	–	12	13	14*h*							
MARGARODES.																					
Unionalis, Hüb.	–	2																			
SCOPULA.																					
Alpinalis.....	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Lutealis	–	2	3*r*	4	5	6	7	8*e*	9	10	11	–	13	14*h*	15	–	–	–	–	20	
Olivalis	1*n*	2	3*r*	4	5	6	7	8	9	10	11	12	13	14	15	–	–	–	–	20	
Prunalis	–	2	3*r*	4*d*	5	6	7	8	9	10	11	12*	13*g*	14	15	–	–	–	–	20	
Ferrugalis	1	2	3*r*	4*d*	5	6	7	8	9*c*	–	–	12*s*	o	14*h*	–	–	–	–	–	–	
Decrepitalis ...	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
MECYNA.																					
Polygonalis	–	–	–	–	–	6															
STENOPTERYX.																					
Hybridalis	1*h*	2	3*r*	4	5	6	7	8	9*c*	10	11	–	13	14*h*	–	–	–	–	–	20*c*	
SCOPARIA.																					
Ambignalis ...	1*n*	2*m*	3*r*	4*d*	5	6*	7	8	–	o	o	–	13*z*	14*h*	15	–	o	–	–	–	
Ulmella, Dale...	–	–	–	–	5*d*																
Ingratella, Zel..	–	–	–	–	–	–	7*k*														

Octomaculalis..	21	–	23	–	25	–	–	–	–	–	–	32	33				
AGROTERA.																	
Nemoralis																	
ENDOTRICHA.																	
Flammealis																	
DIASEMIA.																	
Literalis																	
Ramburialis.....																	
NASCIA.																	
Cilialis																	
STENIA.																	
Punctalis																	
CATACLYSTA.																	
Lemnalis.....	21	o	–	–	–	–	27										
PARAPONYX.																	
Stratiotalis.....	21	22	23*s*														
HYDROCAMPA.																	
Nymphæalis.....	21	22	23	24*	25*	–	27*	28	29*	–	31						
Stagnalis	21	–	o	–	–	–	27*										
BOTYS.																	
Lupulinalis	21*s*																
Pandalis	21*s*	22*s*	23	–	25*												
Flavalis																	
Hyalinalis																	
Verticalis	21*	22	23*														
Lancealis																	
Fuscalis	21	o	o	–	25*	–	27*	28	29	–	31*f*	32*					
Terrealis.....	21*b*	–	–	–	25*	–	–	–	–	–	–	o	o				
Asinalis																	
Urticalis	21	22	23	24*	–	–	27*	28*	29*								
EBULEA.																	
Crocealis.....	21	22	23*s*	24*s*	25*	–	–	–	–	–	–	o					
Verbascalis	o																
Sambucalis.....	21	–	23														
Catalaunalis,Dp.																	
PIONEA.																	
Forficalis	21	22	23	24*	25*	–	27*	28	29	–	31*f*	32*					
Margaritalis ...																	
Stramentalis ...																	
SPILODES.																	
Sticticalis	21	o	23	–	–	–	–	–	29*								
Palealis																	
Cinctalis																	
MARGARODES.																	
Unionalis, Hüb.																	
SCOPULA.																	
Alpinalis.....	–	–	–	–	–	–	–	–	29	–	–	32	33*				
Lutealis	21	22	23	24*	25	26*	27*	28	–	–	31*f*						
Olivalis	21	22	23*	o													
Prunalis	21	22	–	–	–	–	27*	–	–	–	–	32*					
Ferrugalis.....	21	–	–	–	25	–	o										
Decrepitalis	–	–	–	–	–	–	–	–	29	–	–	32	–	34	o		
MECYNA.																	
Polygonalis																	
STENOPTERYX.																	
Hybridalis	21	22*h*	–	24*	–	–	27*	28	–	–	–	32					
SCOPARIA.																	
Ambigualis.....	21	–	o	–	–	–	27	28*	29	–	–	o					
Ulmella, Dale...																	
Ingratella, Zel..																	

Basistrigalis,Kgs.	–	–	–	–	–	6*k*	7*k*	–	–	–	–	–	13*z*	14*k*							
Cembralis	1*h*	2	–	4*d*	5	6*	7	8*k*	–	10*s*	o	–	o	–	15*a*	–	–	–	–	–
Pyralalis.....	–	2	3*r*	4*d*	5*o*	6*	7	8	–	–	o	–	o	–	–	–	o	–	–	–
Muralis	–	2	–	–	–	–	7	–	–	–	o	–	–	–	o	–	–	–	–	–
Lineolalis	1*n*	2*s*	–	4*d*	5*o*	6	7*	–	–	–	11*n*	–	o	–	–	–	–	–	–	–
Mercurialis	1*d*	2	3*r*	4*d*	5*	–	7	8	–	–	–	–	–	–	o	–	–	–	–	–
Cratægalis.....	–	–	3	4*d*	5	–	7	8	–	o	–	–	o	14*h*	–	–	o	–	–	–
Resinalis.....	–	–	–	4*d*	5	6*s*	7	–	–	–	–	–	o	–	–	–	–	–	–	–
Phæoleucalis ...	–	–	–	4																
Truncicolalis...	–	2*s*	–	–	5*s*	6*	7	8*e*	–	–	–	–	o	–	–	–	–	–	–	–
Coarctalis	–	2	–	4	5	6*	7	–	–	–	–	–	13	14*h*	–	–	17*d*	–	–	–
Atomalis.....	–	–	–	–	–	–	–	–	–	–	o	–	–	–	–	–	–	o	–	–
Gracilalis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Paralis.....	–	–	–	–	–	–	–	–	–	–	o	–	–	–	–	–	–	–	–	–
Pallidulalis ...	–	o	–	4*d*	5	6	7	o	–	o	11	12*d*	o	–	–	–	–	–	–	–

Crambi.

Platytes.																					
Cerussellus.....	1	2	–	4*d*	5	6	7	–	–	10*	o	–	–	–	–	–	–	–	–	–	
Crambus.																					
Falsellus.....	–	2	3*d*	4*d*	5	6	7	o	9	10	11	–	–	14*h*	15*	–	17*	18*	–	–	
Pratellus.....	1*n*	2*m*	–	4*d*	5	6	7	8	–	10	11	–	–	14*h*	15	–	–	–	–	–	
Dumetellus.....	–	2*m*	–	–	5	–	7	–	–	–	o	–	13	–	–	–	–	–	–	–	
Ericellus.....	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Adipellus	–	–	–	4*d*	5	–	–	–	–	–	o										
Hamellus	–	2*m*	–	4*d*	5	–	7	–	–	–	o	–	–	–	–	–	–	–	–	–	
Pascuellus	1*n*	2*m*	–	4*d*	5	6	7	8	9*h*	10	11	–	–	14*h*	15	–	–	–	–	–	
Uliginosellus...	–	–	–	4	5	–	7	8*e*													
Furcatellus.....	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	18*s*	–	–	
Margaritellus...	–	2*s*	–	–	–	–	–	8*k*	9*d*	–	11	–	–	14	–	–	–	18*d*	–	–	
Pinetellus	1	2	–	4	5	6	7	8	9	10	11	–	13	14*h*	–	–	o	o	–	–	
Latistriellus ...	–	2*s*	–	4*d*	5	–	7	–	–	10*s*	–	–	–	–	–	–	–	–	–	–	
Perlellus.....	1*	2	–	4*d*	5	6	7	8	o	10	11	12*d*	o	14*h*	15*	16*h*	–	–	–	–	
Warringtonellus	–	–	o	4	5	–	o	o	–	–	–	–	–	–	–	–	–	–	–	–	
Selasellus	1*h*	2	–	4*d*	5	–	7	–	–	o	11	–	o	–	–	–	–	–	–	–	
Tristellus	–	2	–	4	5	6	7	8	9*n*	–	11	–	–	14*h*	15	–	–	–	–	–	
Pedriolellus ...	–	–	–	–	–	–	–	–	–	10											
Inquinatellus...	–	2	–	4	5	6	7	8	9*a*	o	–	–	o	14*h*	–	16*h*	–	–	–	–	
Contaminellus .	–	2*m*	–	–	5*o*	–	7	–	–	–	–	–	o	–	–	–	–	–	–	–	
Geniculellus ...	1*d*	2	–	4*d*	5	6	7	8	–	o	o	–	o	14*h*	–	–	17*d*	18*d*	–	–	
Culmellus	1*h*	2	–	4*d*	5	6	7	8	9*n*	10	11	–	–	14*h*	15	–	–	–	–	–	
Chrysonychellus	–	2*m*	–	4*d*	5*o*	6	7	–	9*h*	–	–	–	o	14*h*							
Rorellus	–	–	–	–	–	6*	7*k*														
Cassentiniellus.	–	2*m*	–	–	–	6															
Hortuellus	–	2*m*	–	4*d*	5	6	7	8	–	10*	11	–	–	14*h*	15*	–	17*	–	–	–	
Paludellus	–	2*m*	–	–	–	–	–	–	–	–	11										
Ocellea, Haw....	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	16	–	–	–	–	
Chilo.																					
Cicatricellus ...	–	–	–	–	–	–	7														
Phragmitellus..	–	–	–	–	5	6*s*	7	8	–	–	11	o	–	14*h*	–	–	–	–	–	–	
Schœnobius.																					
Forficellus	–	2*s*	–	–	5	6	7	8	–	10*	11	–	13	–	15*	–	–	–	–	–	
Mucronellus ...	–	–	–	–	o	–	–	–	–	o	11	12	–	–	o	–	–	–	–	–	
Gigantellus	–	–	–	–	–	–	–	–	–	–	11	12	–	–	–	–	–	–	–	–	
Anerastia.																					
Lotella	–	2*s*	–	4*d*	5	6*h*	–	o	–	10*s*	o	–	–	–	–	–	–	–	–	–	
Farrella	–	–	–	–	–	–	7	–	–	–	11										
Ilithyia.																					
Carnella	–	2	3*d*	4	5	–	7														

Basistrigalis, Kgs.													
Cembralis	21	22	o	–	–	–	27*	28*s*					
Pyralalis	21	–	o	–	–	–	27*	28*	29				
Muralis	21	–	23	o	25	–	–	28	29	–	31*f*	o	
Lineolalis	–	–	23*s*	o	o	–	o	o	29*	o	31*f*		
Mercurialis	21*b*	o	o	–	o	–	–	–	o				
Cratægalis	–	22*s*	–	–	25*s*	–	o	28					
Resinalis	o	–	–	–	o								
Phæoleucalis													
Truncicolalis	21	22*s*	–	–	o								
Coarctalis	21	22*s*	23	–	25*s*	–	o	28					
Atomalis	–	–	–	–	–	–	–	–	29				
Gracilalis	–	–	–	–	o	–	–	–	29				
Paralis	–	–	–	–	–	–	–	–	29				
Pallidulalis	21	22	–	–	–	–	–	28	o				
Crambi.													
Platytes.													
Cerussellus	21*s*												
Crambus.													
Falsellus	21	–	–	–	25	–	–	28	29*m*				
Pratellus	21	–	23*	24*	–	–	27*	28*	–	–	31*f*		
Dumetellus	21	o	–	–	–	–	–	28					
Ericellus	–	–	–	–	–	–	–	–	29				
Adipellus													
Hamellus	21*s*												
Pascuellus	21	22	–	–	–	–	27*	o	–	–	–	32*	
Uliginosellus													
Furcatellus	–	–	–	–	25	–	–	–	29	–	–	o	
Margaritellus	21	22*s*	23	–	25	–	27*	28*	29	–	–	32	
Pinetellus	21	–	–	–	25	–	–	28*	29	–	31*f*	32*	
Latistriellus	21												
Perlellus	21	o	–	–	25*								
Warringtonellus	21	–	–	–	25	–	–	o					
Selasellus	21	22*s*	–	–	25								
Tristellus	21	22	23*	24*	–	–	27*	28*	29	–	31*f*		
Pedriolellus													
Inquinatellus	o	22	–	–	25*	–	o	–	29				
Contaminellus	21	–	–	–	25*	–	–	28					
Geniculellus	21	–	–	–	25	–	27*	–	29	–	–	32*d*	
Culmellus	21	22	23*	24*	25*	–	27*	28*	–	–	31*f*		
Chrysonychellus													
Rorellus													
Cassentiniellus													
Hortuellus	21	22*	23*	24*	–	–	27*	28*	29*d*	–	31*f*		
Paludellus													
Ocellea, Haw.	–	–	–	–	–	o							
Chilo.													
Cicatricellus													
Phragmitellus	21	22*s*											
Schœnobius.													
Forficellus	21	22*s*	23*										
Mucronellus	o	–	–	–	–	–	o						
Gigantellus	–	o											
Anerastia.													
Lotella	21	22*s*	–	–	25*d*								
Farrella													
Ilithyia.													
Carnella													

MYELOPHILA.																						
Cribrella.....	–	–	–	4*d*	5	–	7	8	–	10*s*	–	–	o	14*h*								
HOMŒOSOMA.																						
Sinuella	1	2	–	–	5	6	7															
Nimbella.....	1*h*	2	–	4*d*	–	6	7*k*	–	–	–	–	–	o	–	–	–	–	–	–	–		
Nebulella	1*h*	o	–	o	5*o*	–	7	–	–	10*s*	–	–	o	–	–	–	–	–	–	–		
Eluviella.....	1*h*	–	–	4*d*	5*o*	6	7	–	–	–	–	–	o	–	–	–	–	18	–	–		
NYCTEGRETES.																						
Achatinella	–	–	–	–	–	–	7	–	–	10												
EPHESTIA.																						
Elutella	–	2*s*	–	4*d*	5*o*	6*	7	8	–	–	o	–	o	–	15*	–	–	–	–	–		
Ficella	–	–	–	–	–	–	7*	8	–	–	–	–	–	–	–	–	–	–	–	–		
Semirufella	–	–	–	–	5	–	7	–	–	–	–	–	13*s*									
Pinguedinella..	–	–	–	o	–	6*s*	7	8	–	10*s*	–	o	13*s*	14*h*	–	–	–	–	–	–		
Cinerosella,Zel. [*Artemisiella.*]	–	–	–	–	5*o*	–	–	–	–	–	–	–	13*s*									
CRYPTOBLABES.																						
Bistrigella	1	2*h*	–	4*d*	5	6*	7	8*e*	o	10*	o	–	o	14*h*	–	–	–	–	–	20		
PLODIA.																						
Interpunctella..	–	–	–	–	–	–	–	8*s*	–	–	–	–	–	–	–	–	–	–	–	–		
NEPHOPTERYX.																						
Angustella	–	2	–	–	–	–	–	–	–	–	–	–	13*s*									
GYMNANCYLA.																						
Canella	–	–	–	–	–	6*s*	7*s*															
PHYCIS.																						
Betuletella	–	–	–	–	–	–	7	8	–	–	–	–	13*s*	o	–	–	–	–	–	–		
Carbonariella ..	1*n*	2	–	4	5*	–	7	8	–	–	–	–	–	14*h*	–	–	–	–	–	–		
Adelphella.....	–	–	–	–	–	–	7	–	–	o	–	–	–	14*h*								
Dilutella.....	1*h*	2*m*	–	4*d*	5	6*	7	8*e*	–	10*s*	–	–	o	–	–	16*h*	–	–	–	–		
Subornatella,Dp.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
Ornatella	–	–	–	o	5*d*	–	7															
Abietella.....	–	2*m*	–	4*d*	5	–	o	–	9	–	–	–	–	–	–	–	–	–	–	–		
Roborella	–	2	o	4*d*	5	6	7	8	–	10	–	–	13	14*h*	–	–	–	–	–	–		
PEMPELIA.																						
Palumbella	–	o	–	4*d*	5	6	7	8	9*h*	o	–	–	o	–	–	–	–	–	–	–		
RHODOPHÆA.																						
Formosella.....	–	o	–	–	–	–	7	8														
Consociella.....	1*h*	2*m*	–	–	5	6	7	8	–	–	–	–	o	14*h*	–	–	–	–	–	–		
Advenella	–	–	–	4*d*	5	6	7	8*e*	–	–	–	–	13									
Marmorella ...	–	–	–	4*d*	5	6*s*	7	–	–	–	–	–	13*s*	14*h*	–	–	–	–	–	–		
Suavella	–	–	–	–	5*s*	–	–	8*e*	–	–	–	–	13*s*									
Tumidella	–	2*m*	–	o	5	6	7*	8	–	–	–	–	o	14*h*								
Rubrotibiella...	–	–	–	–	–	–	7	–	–	–	–	–	–	–	–	–	–	–	–	–		
ONCOCERA.																						
Ahenella.....	–	2*m*	–	4*d*	5	6	7	–	–	–	–	–	o	–	o	–	–	–	–	–		
MELIA.																						
Socicella	1*h*	2	–	4	5	6	7	8	9	10	–	12*	13	14*h*	–	–	17*	–	–	–		
Anella.....	–	–	–	–	–	–	7															
GALLERIA.																						
Cerella	–	–	–	–	–	6*	7	8*e*	–	10	o	–	–	–	–	–	o					
MELIPHORA.																						
Alveariella	–	–	–	o	–	–	–	8	–	–	–	12*	–	–	–	–	–	–	–	–		

MYELOPHILA.																	
Cribrella.........																	
HOMŒOSOMA.																	
Sinuella																	
Nimbella.........	21	22*h*	–	–	o												
Nebulella	–	22*h*															
Eluviella.........	–	–	–	–	o												
NYCTEGRETES.																	
Achatinella......																	
EPHESTIA.																	
Elutella	21	22 *s*	23*														
Ficella...........	–	–	–	–	–	–	o										
Semirufella																	
Pinguedinella...	21 *s*	22															
Cinerosella, Zel. [*Artemisiella.*]																	
CRYPTOBLABES.																	
Bistrigella	21																
PLODIA.																	
Interpunctella ..	21 *s*																
NEPHOPTERYX.																	
Angustella																	
GYMNANCYLA.																	
Canella																	
PHYCIS.																	
Betuletella	21	o															
Carbonariella...	21	22	23*d*	–	25	–	–	o	29*a*	–	–	32*					
Adelphella																	
Dilutella	–	–	–	–	–	–	o	28									
Subornatella, Dp.	–	–	–	–	25												
Ornatella.........																	
Abietella.........	21*	22	–	o	25	–	o	–	29								
Roborella	–	22 *s*															
PEMPELIA.																	
Palumbella......	21	22 s	o	–	o												
RHODOPHÆA.																	
Formosella																	
Consociella	21	–	–	–	o												
Advenella																	
Marmorella	–	–	–	–	o												
Suavella																	
Tumidella																	
Rubrotibiella ...	o																
ONCOCERA.																	
Ahenella.........	–	–	23	–	25	–	–	–	–	o							
MELIA.																	
Sociella	21	–	23*	24*	25*	–	–	28	29*	–	31*f*	32*					
Anella																	
GALLERIA.																	
Cerella																	
MELIPHORA.																	
Alveariella......	21*b*	o	23 *s*	–	–	–	o	–	o								

Explanation of Table III.

This Table may be considered as in some measure a combination of Tables V. and VI. in the fourth volume of the "Cybele Britannica."

1. *Longitude.*—In the first column the letters "w" and "e" stand for West and East Britain.

East Britain contains sub-provinces—

5, 6, 7, 8, 9, 10, 11, 12, 19, 20, 22, 23, 24, 28, 29, 30, 31.

West Britain includes sub-provinces—

1, 2, 3, 4, 13, 14, 15, 16, 17, 18, 21, 25, 26, 27, 32, 33, 34, 35, 36, 37, 38.

A third letter, "i," has been prefixed, in order to show the species which extend westward into Ireland.

2. *Latitude.*—In the second column the letters "s m n" stand for South, Middle, and North; the three latitudinal divisions of Britain.

South Britain includes sub-provinces .	1—18
Mid Britain	19—28
North Britain	29—38

3. The third column, with the head-letters, S. and N., shows the number of sub-provinces for South Britain, as distinguished from Middle and North Britain, the two latter being taken together. In this column—

South Britain includes sub-provinces .	1—19
North and Mid Britain . . .	20—38

4. The fourth column, with the head-letters "W. SC. E." shows the number of sub-provinces for Scotland in contrast against England, and the western and eastern sides of England also in contrast against each other. The Scottish sub-provinces being removed; the western and eastern divisions will be the same as in the first column; the western division having twelve, and the eastern thirteen sub-provinces.

5. The fifth column contains the Geographic types. Mr. Watson uses eight types, which may be thus explained—

(1.) *British Type* includes species found in all or nearly all the eighteen provinces, which are not so exclusively prevalent or predominant in any particular portion of the island, as to bring them clearly within one or other of the following types.

(2.) *English Type,* — species having their chief prevalence in the southern provinces of England, whence they

gradually become rare in a northern direction, and find an earlier northern limit than those of the preceding type.

(3.) *Scottish Type,* — species having their chief prevalence in Scotland, and becoming rare in a southern direction.

(4.) *Intermediate Type,* — species having their chief prevalence in Mid Britain, and becoming rarer in a northern and southern direction.

(5.) *Highland Type,* — the species referred hereto are distinguished from the Scottish type by being more especially limited to the mountains or their immediate vicinity.

(6.) *Germanic Type,* —species chiefly prevalent in the south-east of Britain, and becoming rarer in a northern and western direction.

(7.) *Atlantic Type,* — species chiefly prevalent in the south-west of Britain, and becoming rarer in a northern and eastern direction.

(8.) *Local or doubtful Type,* — species restricted to single or few provinces, not showing such a decided tendency to the east or the west, to the south or the north, to the mountains or otherwise, as to warrant their assignment to any of the preceding types.

Much misapprehension having existed with regard to these "types of distribution," some further information respecting them may be advisable.

British Type.—It is to be observed (says Mr. Watson, C. B. vol. i. p. 45), that the name of "British Type" is applied to them (*i. e.* the species referred to this type) not on any hypothetical notions of their origin within Britain, but because such a general distribution and prevalence indicates great adaptation to the climate and other local conditions of this country, and entitles them to be considered thoroughly native both in England and Scotland.

English Type.—The terminal lines of the species referred to this type are very different among themselves; some being entirely limited to two or three of the most southern provinces of England, while other species occur in all the provinces of Britain, with an exception of two or three of the most northern, the great majority having their limits between these two extremes. The name of "English Type" will not be misunderstood to indicate that all the species are peculiar to England,

but is to be understood only as implying that the species are apparently adapted to the climate of England, either being restricted to that part of Britain, or being more prevalent there than in Scotland.

Scottish Type. — The same observations, *mutatis mutandis*, apply to the "Scottish Type," the species referred to which, although having their chief prevalence in Scotland, still descend into England, although characterized by increased rarity southwards.

Germanic Type.—This name is not applied with reference to any supposed origin from Germany, but simply as indicating the tendency of the species to a distribution connected with those provinces of England which are bounded by the German or North Sea eastward, including the Straits of Dover and upper part of the English Channel.

Atlantic Type.—The name of this type will be understood as having reference only to the distribution of the species referred to it within Britain itself, and by itself.

It is especially to be remarked that no decided line of separation can be drawn between these types; they may be said to pass gradually into each other, because the distribution of some species is of such an intermediate character as to render the choice of type to express it either dubious or optional.

For further information respecting these "types of distribution," see the "Cybele Britannica," whence the foregoing explanations have been drawn almost word for word.

The following is a summary of these types, doubtful cases being reckoned under the types to which they are doubtfully referred.

No. of Species.		E	B	G	S	A	I	H	L
308	Noctuæ	127	87	14	8	4	8	3	57
278	Geometræ	137	81	10	15	1	1	2	31
110	Nocturni	53	28	9	–	4	–	–	16
72	Crambi	33	11	1	1	1	–	1	24
72	Pyralides	34	13	7	4	–	–	1	13
65	Diurni	28	22	10	2	1	–	1	1
27	Pseudo-Bombyces	13	7	1	–	–	–	–	6
14	Deltoidæ	9	1	3	–	–	–	–	1
6	Drepanulæ	3	2	–	–	–	–	–	1
1	Aventiæ	–	–	1	–	–	–	–	–
953	Totals	437	252	56	30	11	9	8	150

The great numerical superiority of the English over the British type is no doubt due to the very imperfect exploration of the north of Scotland, and, as our knowledge increases, many species will have to be transferred from the former to the latter; though even were our information complete, the English type would probably be found to maintain a considerable superiority, owing to the conditions which exist in the north of Scotland being apparently less favourable to insect life than those of the more southern parts of Britain.

There are a few instances in which species of *Diurni* have been referred to different types from those to which Messrs. Boyd and More assigned them in their paper on the "Geographical Distribution of British Butterflies," in the *Zoologist* for 1858.

1. *Argynnis Lathonia* has been transferred from the Germanic to the English type, principally from having occurred in Ireland.

2. *Pieris Daplidice* seems to belong more naturally to the English than to the Germanic type, having occurred in sub-provinces 3 and perhaps 14.

3. *Lycæna Corydon*. The occurrence of this species in sub-provinces 3, 13, and 25, must, I think, bring it under the English in preference to the Germanic type.

TABLE III.

Summary of Distribution.

Diurni.	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
PAPILIO.								
Machaon	? ? e	s – –	3	–	–	–	3	Local.
LEUCOPHASIA.								
Sinapis	i w e	s m –	13	2	7	–	8	English.
PIERIS.								
Cratægi	i w e	s – –	11	–	6	–	5	English.
Brassicæ	i w e	s m n	19	15	12	9	13	British.
Rapæ	i w e	s m n	19	13	12	7	13	British.
Napi	i w e	s m n	17	14	10	8	13	British.
Daplidice	– w e	s – –	4	–	1	–	3	English.
ANTHOCHARIS.								
Cardamines	i w e	s m n	17	12	10	6	13	British.
GONOPTERYX.								
Rhamni	i w e	s m n	17	6	10	–	13	English.
COLIAS.								
Edusa.....	i w e	s m ?	19	8	12	2	13	English.
Hyale.....	i w e	s m –	11	3	5	–	9	English.
ARGYNNIS.								
Paphia	i w e	s m –	18	6	12	–	12	English.
Aglaia.....	i w e	s m n	17	12	12	6	11	British.
Adippe	– w e	s m ?	15	5	9	1	10	English.
Lathonia	i w e	s – –	8	–	2	–	6	English.
Euphrosyne	– w e	s m n	18	11	11	5	13	British.
Selene.....	– w e	s m n	15	13	10	7	11	British.
MELITÆA.								
Artemis.....	i w e	s m n	18	12	11	6	13	British.
Cinxia	– – e	s ? –	4	–	–	–	4	Germanic.
Athalia	i w e	s ? –	9	?	4	–	5	English.
VANESSA.								
C-album.....	– w e	s m –	14	6	9	–	11	English.
Urticæ	i w e	s m n	18	14	11	8	13	British.
Polychloros	? w e	s m –	18	4	10	–	12	English.
Antiopa	i w e	s m –	13	8	7	2	12	English.
Io.....	i w e	s m n	18	12	11	6	13	British.
Atalanta	i w e	s m n	17	13	10	7	13	British.
Cardui	i w e	s m n	19	12	12	6	13	British.
LIMENITIS.								
Sibylla	– w e	s – –	6	–	1	–	5	Germanic.
APATURA.								
Iris	– w e	s m –	11	1	2	–	10	Germanic.
ARGE.								
Galatea	– w e	s m –	14	3	7	–	10	Germanic.
EREBIA.								
Epiphron, Kn... [*Cassiope.*]	i w e	– m n	–	2	1	1	–	Highland.
Medea, w. v. ... [*Blandina.*]	– w e	– m n	–	8	1	5	2	Scottish.
SATYRUS.								
Egeria	i w e	s m n	17	11	10	5	13	British.
Megæra.....	i w e	s m n	18	12	11	6	13	English.
Semele	i w e	s m n	16	13	11	7	11	British.
Ianira.....	i w e	s m n	17	13	10	7	13	British.
Tithonus	i w e	s m –	17	6	10	–	13	English.
Hyperanthus....	i w e	s m n	18	12	10	7	13	British.

	LONG.			LAT.			S.	N.	W.	SC.	E.	TYPE.
CHORTOBIUS.												
Davus	i	w	e	s	m	n	1	15	3	11	2	Scottish.
Pamphilus	i	w	e	s	m	n	17	13	10	7	13	British.
THECLA.												
Rubi	i	w	e	s	m	n	19	11	12	6	12	British.
Quercus	i	w	e	s	m	n	17	10	10	4	13	English.
W-album	–	w	e	s	m	–	10	3	5	–	8	English.
Pruni	–	?	e	s	–	–	2	–	–	–	2	Germanic.
Betulæ	i	w	e	s	m	–	12	1	6	7	–	English.
POLYOMMATUS.												
Hippothoe	–	–	?	?	–	–	?	–	–	–	?	Germanic.
Phlœas	i	w	e	s	m	n	18	13	11	7	13	British.
LYCÆNA.												
Ægon	i	w	e	s	m	?	12	4	7	?	9	English.
Agestis	i	w	e	s	m	n	17	11	11	5	12	English.
Alexis	i	w	e	s	m	n	18	15	11	9	13	British.
Adonis	–	w	e	s	–	–	6	–	2	–	4	Germanic.
Corydon	i	w	e	s	m	–	10	1	4	–	7	English.
Acis	–	w	e	s	?	–	4	?	3	–	1	English.
Alsus	i	w	e	s	m	n	12	13	9	7	9	British.
Argiolus	i	w	e	s	m	–	16	6	10	–	12	English.
Arion	–	w	e	s	–	–	4	–	3	–	1	English.
Bætica, Lin.	–	–	e	s	–	–	1	–	–	–	1	Germanic (?).
NEMEOBIUS.												
Lucina	i	w	e	s	m	–	11	3	5	1	8	English.
SYRICHTHUS.												
Alveolus	–	w	e	s	m	–	17	6	9	2	12	English.
THANAOS.												
Tages	i	w	e	s	m	n	17	9	10	3	13	British.
HESPERIA.												
Paniscus	–	?	e	s	?	–	3	?	?	–	3	Germanic.
Sylvanus	i	w	e	s	m	–	18	8	11	2	13	English.
Comma	–	w	e	s	m	?	8	1	2	?	7	Germanic (?).
Linea	i	w	e	s	m	–	18	5	11	?	12	English.
Actæon	–	w	–	s	–	–	2	–	2	–	–	Atlantic.
Nocturni.												
SMERINTHUS.												
Ocellatus	i	w	e	s	m	–	16	6	10	1	11	English.
Populi	i	w	e	s	m	n	17	13	11	7	12	British.
Tiliæ	–	w	e	s	m	–	14	1	6	?	9	English.
ACHERONTIA.												
Atropos	i	w	e	s	m	n	15	15	9	9	12	British.
SPHINX.												
Convolvuli	i	w	e	s	m	n	15	13	9	7	12	British.
Ligustri	i	w	e	s	m	?	15	3	7	?	11	English.
DEILEPHILA.												
Euphorbiæ	?	?	?	?	?	–	?	?	?	–	?	Atlantic.
Galii	i	w	e	s	m	?	10	5	6	?	9	English.
Lineata	i	w	e	s	m	?	7	3	5	?	5	English.
CHŒROCAMPA.												
Celerio	–	w	e	s	m	?	10	7	6	1	10	English.
Porcellus	i	w	e	s	m	n	13	8	7	3	11	English.
Elpenor	i	w	e	s	m	?	17	8	10	2	13	English.
Nerii	–	w	e	s	–	–	4	–	1	–	3	Germanic.
MACROGLOSSA.												
Stellatarum	i	w	e	s	m	n	18	12	12	6	12	British.
Fuciformis	–	w	e	s	m	–	9	3	3	?	9	English.
Bombyliformis	i	w	e	s	m	n	12	10	6	5	11	British.
SESIA.												
Myopiformis	i	w	e	s	–	–	6	–	2	–	4	English.

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
Culiciformis ...	i w e	s m ?	5	3	1	?	7	English.
Formiciformis .	i w e	s m –	4	1	1	–	4	English.
Chrysidiformis.	– ? e	s ? –	2	?	?	–	2	Germanic.
Ichneumoniformis	– w e	s m –	8	1	4	–	5	English.
Cynipiformis ...	– w e	s ? –	6	?	2	–	4	English.
Philanthiformis, Lasp.	i w –	s m –	2	1	3	–	–	Atlantic.
Tipuliformis ...	i w e	s m –	13	6	7	1	11	English.
Andreniformis .	– w e	s – –	2	–	1	–	1	Local.
Scoliiformis ...	i w –	s – n	1	1	1	1	–	Local.
Sphegiformis ...	– w e	s m –	2	2	2	–	2	Local.
Asiliformis.....	– – e	s – –	2	–	–	–	2	Germanic.
Bembiciformis .	i w e	s m ?	13	7	8	1	11	English.
Apiformis	i w e	s ? –	11	?	4	?	7	English.
MACROGASTER.								
Arundinis	– – e	s – –	2	–	–	–	2	Local.
ZENZERA.								
Æsculi	– w e	s ? –	12	?	5	–	7	English.
COSSUS.								
Ligniperda.....	i w e	s m n	14	6	7	2	11	British.
HEPIALUS.								
Hectus	i w e	s m n	15	13	9	7	12	British.
Lupulinus	i w e	s m n	15	12	9	6	12	British.
Sylvanus.....	i w e	s m n	16	12	10	6	12	British.
Velleda	i w e	s m n	6	15	6	9	6	British.
Humuli	i w e	s m n	15	13	10	7	11	British.
LIMACODES.								
Asellus	– – e	s – –	3	–	–	–	3	Germanic.
Testudo	– w e	s – –	4	–	1	–	3	Germanic.
PROCRIS.								
Statices	i w e	s m n	16	8	10	2	12	English.
Geryon, Hüb....	– w e	s m –	4	3	3	–	4	English.
Globulariæ.....	– w e	s – –	4	–	2	–	2	English.
ZYGÆNA.								
Minos	i – –	– – –	–	–	–	–	–	Atlantic.
Nubigena,Mann	i w –	– – n	–	1	–	1	–	Local.
Trifolii.....	i w e	s m ?	14	1	7	?	8	English.
Loniceræ.....	– w e	s m ?	12	5	8	?	9	English.
Filipendulæ ...	i w e	s m n	16	13	10	7	12	English.
NACLIA.								
Ancilla, Lin. ...	– – e	s – –	1	–	–	–	1	Local.
NOLA.								
Cucullatella ...	i w e	s m –	14	6	8	–	12	English.
Confusalis, H.-S. [*Cristulalis.*]	i w e	s m –	13	4	7	?	10	English.
Strigula	i w e	s m –	7	3	1	–	9	English.
Centonalis	– – e	s – –	1	–	–	–	1	Local.
Albulalis, W. V...	– – e	s – –	1	–	–	–	1	Local.
NUDARIA.								
Senex	– ? e	s m –	5	1	?	–	6	Germanic.
Mundana.....	i w e	s m n	14	9	7	4	12	British.
SETINA.								
Irrorella	i w e	s ? n	8	1	3	1	5	English.
CALLIGENIA.								
Miniata	i w e	s m –	14	2	6	–	10	English.
LITHOSIA.								
Mesomella	i w e	s m ?	12	3	6	?	9	English.
Muscerda	– – e	s – –	1	–	–	–	1	Local.

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
Unita, Esp.....	i w e	s – –	8	?	1	–	7	English.
[*Aureola.*]								
Pygmæola	– – e	s – –	1	–	–	–	1	Local.
Caniola, Hüb....	i w –	s – –	1	–	1	–	–	Atlantic.
Complana	i w e	s m ?	13	2	8	?	7	English.
Molybdcola, Gn.	– w –	– m –	–	1	1	–	–	Local.
Lurideola, Tr...	i w e	s m ?	13	2	7	?	8	English.
[*Complanula.*]								
Griseola	– w e	s m –	12	2	5	–	9	English.
Stramineola ...	– w e	s ? –	9	?	3	–	6	English.
Deplana, Esp...	i ? e	s m –	3	1	?	–	4	English (?)
[*Helveola.*]								
Quadra	– w e	s m –	9	2	4	–	7	English.
Rubricollis ...	i w e	s m n	13	7	7	2	11	English.
EULEPIA.								
Grammica	– w e	s – –	2	–	1	–	1	Local.
Cribrum	– w e	s – –	2	–	1	–	1	Local.
DEIOPEIA.								
Pulchella	– ? e	s ? –	5	?	?	–	5	Germanic.
EUCHELIA.								
Jacobææ.....	i w e	s m n	17	10	10	4	13	British.
CALLIMORPHA.								
Domiuula	i w e	s m –	10	1	4	–	7	English.
EUTHEMONIA.								
Russula.....	i w e	s m n	13	9	7	4	11	British.
CHELONIA.								
Plantaginis.....	i w e	s m n	15	15	10	9	11	British.
Caia.....	i w e	s m n	16	13	10	7	12	British.
Villica.....	i w e	s – –	14	–	6	–	8	English.
ARCTIA.								
Fuliginosa	i w e	s m n	15	13	9	8	11	British.
Mendica	i w e	s m –	15	5	8	–	12	English.
Lubricipeda ...	i w e	s m n	17	10	10	4	13	British.
Menthastri.....	i w e	s m n	15	11	10	5	11	British.
Urticæ	– w e	s m –	9	1	3	?	7	English.
LIPARIS.								
Chrysorrhœa...	i w e	s m –	9	1	4	–	6	English.
Auriflua	i w e	s m –	16	4	9	–	11	English.
Salicis	i w e	s m –	12	2	4	?	10	English.
Dispar.....	i w e	s ? –	3	?	1	–	2	English.
Monacha	i w e	s m –	12	3	5	–	10	English.
ORGYIA.								
Pudibunda.....	i w e	s m –	15	5	10	–	10	English.
Fascelina	? w e	s m n	6	8	4	5	5	British.
Cœnosa	– – e	s – –	1	–	–	–	1	Local.
Gonostigma ...	– w e	s m –	5	3	1	–	7	Local.
Antiqua	i w e	s m n	14	12	9	6	11	British.
DEMAS.								
Coryli.....	i w e	s m n	11	10	6	7	8	British.
TRICHIURA.								
Cratægi	i w e	s m ?	12	6	7	?	11	English.
PŒCILOCAMPA.								
Populi.....	i w e	s m n	14	9	8	3	12	British.
ERIOGASTER.								
Lanestris.....	i w e	s m ?	14	7	8	1	12	English.
BOMBYX.								
Neustria	i w e	s m –	13	4	7	–	10	English.
Castrensis	? ? e	s – –	2	–	?	–	2	Germanic.
Rubi.....	i w e	s m n	16	13	10	7	12	British.

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
Quercus	i w e	s m ?	13	4	7	?	10	English (?).
Callunæ	i w e	s m n	4	5	5	2	2	British.
Trifolii	? w e	s m –	6	1	4	–	3	English.
ODONESTIS.								
Potatoria	i w e	s m n	17	10	10	4	13	British.
LASIOCAMPA.								
Quercifolia ...	– w e	s ? –	9	?	2	–	7	Germanic.
Ilicifolia	– w e	s m –	2	1	2	–	1	Local.
ENDROMIS.								
Versicolor	i w e	s ? n	4	2	1	2	3	British (?).
SATURNIA.								
Carpini	i w e	s m n	14	13	9	7	11	British.
Geometræ.								
UROPTERYX.								
Sambucaria ...	i w e	s m –	16	6	10	?	12	English.
EPIONE.								
Vespertaria ...	i – e	s m –	1	1	–	–	2	Local.
Apiciaria	i w e	s m n	14	10	8	4	12	British.
Advenaria	– w e	s m –	7	1	3	?	5	English.
RUMIA.								
Cratægata	i w e	s m n	16	11	10	5	12	British.
VENILIA.								
Maculata	i w e	s m ?	14	6	8	1	11	English.
ANGERONA.								
Prunaria.....	i w e	s m –	14	2	7	–	9	English.
METROCAMPA.								
Margaritaria ...	i w e	s m n	16	11	10	5	12	British.
ELLOPIA.								
Fasciaria	i w e	s m n	11	10	7	5	9	British.
EURYMENE.								
Dolabraria.....	i w e	s m –	14	5	8	?	11	English.
PERICALLIA.								
Syringaria.....	– w e	s m –	14	4	7	–	11	English.
SELENIA.								
Illunaria	i w e	s m n	15	11	9	5	12	British.
Lunaria	i w e	s m ?	12	6	8	?	10	English.
Illustraria	– w e	s ? ?	11	?	5	?	6	English.
ODONTOPERA.								
Bidentata	i w e	s m n	14	11	9	5	11	British.
CROCALLIS.								
Elinguaria.....	i w e	s m n	13	12	8	6	11	British.
ENNOMOS.								
Alniaria	– – e	s – –	4	–	–	–	4	Germanic.
Tiliaria	i w e	s m n	14	10	8	4	12	British.
Fuscantaria ...	– w e	s m –	10	5	6	?	9	English.
Erosaria	i w e	s m –	12	3	6	?	9	English.
Angularia	i w e	s m ?	11	3	6	?	8	English.
HIMERA.								
Pennaria	i w e	s m n	14	13	8	7	12	British.
PHIGALIA.								
Pilosaria	i w e	s m n	14	9	9	3	11	English.
NYSSIA.								
Zonaria	– w –	s m ?	1	1	2	?	–	Local.
Hispidaria	– w e	s m –	4	4	1	–	7	English (?).
BISTON.								
Hirtarius	i w e	s m –	11	2	4	–	9	English.
AMPHIDASYS.								
Prodromaria ...	i w e	s m –	14	6	8	–	12	English.
Betularia.....	i w e	s m n	14	12	8	6	12	British.

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
HEMEROPHILA.								
Abruptaria ...	i w e	s m –	14	6	8	–	12	English.
CLEORA.								
Viduaria	i – e	s – –	2	–	–	–	2	Germanic.
Glabraria	– w e	s m –	2	1	2	?	1	Local.
Lichenaria	i w e	s m n	15	8	9	4	10	English.
BOARMIA.								
Repandaria.....	i w e	s m n	15	11	10	5	11	British.
Rhomboidaria .	i w e	s m ?	14	4	8	?	10	English.
Perfumaria,New.	– – e	s – –	1	–	–	–	1	Local.
Abietaria	– w e	s ? ?	5	?	2	?	3	English (?).
Cinctaria	i w e	s ? ?	4	?	1	?	3	English.
Roboraria	i w e	s m –	6	2	2	–	6	English.
Consortaria ...	– – e	s – –	5	–	–	–	5	Germanic.
TEPHROSIA.								
Consonaria ...	i ? e	s ? –	6	?	?	–	6	English.
Crepuscularia .	i w e	s m ?	10	3	7	?	6	English.
Biundularia ...	i w e	s m –	10	4	6	?	8	English.
Extersaria	– w e	s – –	9	–	3	–	6	English.
Punctularia ...	i w e	s m –	10	3	5	–	8	English.
GNOPHOS.								
Obscurata	i w e	s m n	10	7	8	3	6	British.
DASYDIA.								
Obfuscata	? w e	– ? n	–	4	?	4	–	Scottish.
PSODOS.								
Trepidaria	– ? e	– – n	–	1	–	1	–	Highland.
MNIOPHILA.								
Cineraria	– w –	s – –	1	–	1	–	–	Local.
BOLETOBIA.								
Fuliginaria.....	– w e	s – –	3	–	1	–	2	Local.
PSEUDOTERPNA.								
Cytisaria	i w e	s m n	14	8	8	4	10	English.
GEOMETRA.								
Papilionaria ...	i w e	s m n	18	11	11	5	13	British.
Smaragdaria ...	– – e	s – –	2	–	–	–	2	Germanic.
NEMORIA.								
Viridata	i w e	s m –	4	2	5	–	1	English.
IODES.								
Vernaria.....	i w e	s – –	11	–	4	–	7	English.
Lactearia	i w e	s m ?	14	7	8	2	11	English.
PHORODESMA.								
Bainlaria.....	– w e	s m –	13	3	6	–	10	English.
HEMITHEA.								
Thymiaria	i w e	s m n	14	6	8	1	11	English.
EPHYRA.								
Poraria	i w e	s m ?	12	1	7	?	6	English.
Punctaria	i w e	s m n	13	10	7	5	11	British.
Trilinearia	– w e	s m –	8	2	4	–	6	English.
Omicronaria ...	– w e	s m –	13	3	6	–	10	English.
Orbicularia.....	– w e	s – –	5	–	2	–	3	English.
Pendularia.....	i w e	s m n	11	6	6	2	9	British.
HYRIA.								
Auroraria	i w e	s m –	4	2	3	–	3	English.
ASTHENA.								
Luteata	– w e	s m ?	17	7	10	1	13	English.
Candidata	i w e	s m ?	16	7	10	1	12	English.
Sylvata	i w e	s m –	9	6	7	1	7	English.
Blomeraria.....	– w e	s m –	6	4	6	–	4	English.
EUPISTERIA.								
Heparata	– w e	s m –	13	5	7	–	11	English.

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
VENUSIA.								
Cambricaria ...	i w c	s m n	2	6	3	1	4	Intermediate.
ACIDALIA.								
Ochreata.....	– – e	s – –	1	–	–	–	1	Local.
Rubricata	– – c	s m –	2	1	–	–	3	Germanic.
Scutulata	i w e	s m –	15	8	9	2	12	English.
Bisetata	i w e	s m n	14	10	9	4	11	British.
Trigeminata ...	i w e	s ? –	8	?	3	?	5	English.
Contiguaria ...	– w –	s – –	1	–	1	–	–	Local.
Rusticata	i w e	s – –	2	–	1	–	1	English (?).
Osseata, w. v. ...	– – e	s – –	1	–	–	–	1	Germanic (?).
Holosericata ...	– w e	s – –	3	–	2	–	1	English (?).
Interjectaria,Bdv. [*Osseata.*]	– – e	s – –	3	–	–	–	3	English (?).
Incanaria	i w c	s m –	16	8	10	3	11	English.
Circellata	– w –	– m –	–	1	1	–	–	Local.
Ornata.....	– w e	s m –	8	1	3	–	6	English.
Promutata	i w e	s m –	12	3	8	?	7	English.
Straminata	– w e	s – –	4	–	1	–	3	Germanic.
Manenniata,Knag.	– w –	– m –	–	1	1	–	–	Local.
Subsericeata ...	i w e	s m –	10	3	7	?	6	English.
Immutata	i w e	s m –	8	3	5	?	6	English.
Remutata	i w c	s m n	15	10	9	4	12	British.
Fumata	i w e	s m n	2	8	4	4	2	Scottish.
Strigilata	i ? e	s ? –	2	?	?	–	2	Local.
Imitaria	i w e	s m –	15	5	8	–	12	English.
Emutaria	– ? e	s ? –	1	–	?	–	1	Local.
Aversata.....	i w e	s m n	14	10	9	4	11	British.
Inornata.....	i w e	s m –	5	4	3	?	6	English.
Degeneraria ...	– w –	s – –	1	–	1	–	–	Local.
Emarginata ...	– w e	s m –	14	2	7	?	9	English.
TIMANDRA.								
Amataria	i w e	s m ?	14	5	7	?	12	English.
CABERA.								
Pusaria	i w e	s m n	15	10	10	4	11	British.
Rotundaria.....	– w e	s m ?	6	1	2	?	5	Local.
Exanthemaria ..	i w e	s m n	15	11	10	6	10	British.
CORYCIA.								
Temerata	i w c	s m –	13	4	7	–	10	English.
Taminata	i w e	s m –	9	1	2	–	8	English.
ALEUCIS.								
Pictaria	– – e	s – –	2	–	–	–	2	Germanic.
MACARIA.								
Alternata.	– w e	s ? –	5	?	3	–	2	English.
Notata.....	i w e	s – ?	9	?	4	?	5	English.
Liturata	i w e	s m n	9	12	5	6	10	British.
HALIA.								
Vauaria	i w e	s m n	13	11	8	5	11	British.
APLASTA.								
Ononaria, Fuess.	– – c	s – –	1	–	–	–	1	Local.
STRENIA.								
Clathrata	i w e	s m ?	14	6	7	1	12	English.
PANAGRA.								
Petraria	i w e	s m ?	14	4	8	?	10	English.
NUMERIA.								
Pulveraria	i w c	s m n	13	10	8	4	11	British.
SCODIONA.								
Belgiaria.....	i w e	s m n	5	10	3	6	6	British.
SELIDOSEMA.								
Plumaria.....	i w e	s m –	3	2	2	–	3	English.

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
FIDONIA.								
Carbonaria.....	– – e	– – n	–	1	–	1	–	Scottish.
Atomaria	i w e	s m n	16	14	10	8	12	British.
Piniaria	i w e	s m n	12	13	8	7	10	British.
Pinetaria	– – e	– ? n	–	1	–	1	?	Scottish.
Conspicuata ...	– – e	s – n	2	1	–	1	2	Local.
MINOA.								
Euphorbiata ...	– w e	s – –	10	–	4	–	6	English.
SCORIA.								
Dealbata.....	i w e	s – –	3	–	2	–	1	English.
STERRHA.								
Sacraria	i w e	s m n	8	3	5	1	5	English (?).
LYTHRIA.								
Purpuraria, Lin.	– – e	– – n	–	1	–	1	–	Local.
ASPILATES.								
Strigillaria	i w e	s m –	8	4	5	1	6	English.
Citraria	i w e	s ? ?	7	?	3	?	4	English.
Gilvaria	i w e	s – –	5	–	2	–	3	English.
ABRAXAS.								
Grossulariata...	i w e	s m n	15	11	9	5	12	British.
Ulmata	i w e	s m –	13	6	9	?	10	English.
LIGDIA.								
Adustata.....	i w e	s m –	14	3	7	1	9	English.
LOMASPILIS.								
Marginata	i w e	s m n	16	12	9	6	13	British.
PACHYCNEMIA.								
Hippocastanaria	– w e	s – –	5	–	1	–	4	Germanic.
HYBERNIA.								
Rupicapraria...	i w e	s m n	13	10	8	4	11	British.
Leucophæaria ..	i w e	s m n	13	10	8	4	11	British.
Aurantiaria ...	i w e	s m n	10	10	6	4	10	British.
Progemmaria ...	i w e	s m n	15	10	9	4	12	British.
Defoliaria	i w e	s m n	14	11	9	5	11	British.
ANISOPTERYX.								
Æscularia	i w e	s m n	14	9	8	4	11	British.
CHEIMATOBIA.								
Brumata	i w e	s m n	16	11	10	5	12	British.
Borcata	– w e	s m ?	5	5	4	?	6	English.
OPORABIA.								
Dilutata	i w e	s m n	14	12	8	6	12	British.
Filigrammaria .	– w e	s m n	1	6	3	4	?	Scottish (?).
LARENTIA.								
Didymata	i w e	s m n	14	11	9	5	11	British.
Multistrigaria .	i w e	s m n	10	11	7	5	9	British.
Cæsiata	i w e	s m n	1	12	3	8	2	Scottish.
Ruficinctata ...	– w e	– m n	–	5	1	3	1	Scottish.
Salicata	i w e	? m n	?	8	2	4	2	Highland.
Olivata	i w e	s m n	12	10	8	6	8	British.
Pectinitaria ...	i w e	s m n	13	11	8	5	11	British.
EMMELESIA.								
Affinitata	– w e	s m n	15	8	10	2	11	English.
Alchemillata ...	i w e	s m n	16	12	10	6	12	British.
Albulata	i w e	s m n	13	11	9	5	10	British.
Decolorata	i w e	s m ?	15	7	10	1	11	English.
Tæniata	i w e	s m –	1	3	2	–	2	Local.
Unifasciata	i w e	s m ?	7	3	4	?	6	English.
Ericetata.....	i w e	s m n	1	8	1	7	1	Scottish.
Blandiata	i w e	s m n	1	4	2	3	?	Scottish.
EUPITHECIA.								
Venosata.....	i w e	s m –	12	5	6	–	11	English.

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
Consignata.....	– w e	s – –	3	–	1	–	2	English (?).
Linariata.....	– w e	s m –	7	3	4	?	6	English.
Pulchellata.....	i w e	s m n	13	7	8	2	10	English.
Centaureata.....	i w e	s m –	14	8	8	2	12	English.
Succenturiata...	i w e	s m ?	10	2	6	?	6	English.
Subfulvata, Ha.	i w e	s m –	11	7	8	1	9	English.
Subumbrata ...	i w e	s ? –	8	?	3	–	5	English.
Pernotata	– – ?	? – –	?	–	–	–	?	Local.
Valerianata,Hb. [*Viminata.*]	– w e	s m –	4	1	3	–	2	English.
Plumbeolata ...	i w e	s m ?	11	6	7	1	9	English.
Isogrammata,Tr. [*Haworthiata.*]	i w e	s ? –	6	?	2	?	4	English.
Pygmæata	i w e	s m –	2	5	3	2	2	Scottish (?).
Helveticaria ...	– w e	– m ?	–	2	1	1	–	Scottish.
Arceuthata, Fr.	i – e	s – –	1	–	–	–	1	Local.
Satyrata.....	i w e	s m n	5	8	4	4	5	British (?).
Egenaria.....	– – e	s – –	1	–	–	–	1	Local.
Lariciata, Frey.	– w e	s m –	4	1	2	–	3	English (?).
Castigata.....	i w e	s m n	12	8	7	4	9	English.
Virgaureata,Dbl. [*Pimpinellata*]	i w e	s m –	5	3	3	–	5	English.
Albipunctata,Ha.	– w e	s m –	7	3	3	–	7	English.
Pusillata.....	– w e	s ? ?	3	?	1	?	2	Local.
Irriguata.....	– w e	s ? –	5	?	1	?	4	Germanic.
Fraxinata, Cre. [*Innotata.*]	? w e	s m ?	6	4	3	1	6	English.
Indigata	– w e	s m ?	4	4	3	1	4	English.
Constrictata ...	i w e	s m n	4	4	4	1	3	English.
Nanata	i w e	s m n	11	11	7	5	10	British.
Subnotata	i w e	s m –	7	2	3	–	6	English.
Vulgata	i w e	s m n	14	10	8	4	12	British.
Pimpinellata,Hb. [*Denotata.*]	i w e	s m –	6	1	2	–	5	English.
Expallidata.....	? w e	s ? –	4	?	2	–	2	English.
Absinthiata ...	i w e	s m n	12	9	7	4	10	British.
Minutata.....	i w e	s m ?	4	2	1	?	5	English.
Assimilata	i w e	s m n	8	6	5	3	6	British.
Campanulata,H.-S.	– w e	s m –	1	1	1	–	1	Local.
Trisignata, H.-S.	i w e	s m –	5	2	2	–	5	English.
Tenniata.....	i w e	s m ?	8	3	4	?	7	English.
Subciliata	– w e	s ? –	5	?	2	–	3	English.
Dodoneata.....	– w e	s m –	6	1	1	–	6	English.
Abbreviata.....	i w e	s m n	14	9	8	3	12	English.
Exiguata.....	i w e	s m ?	14	5	8	1	10	English.
Sobrinata	i w e	s m n	4	7	2	3	6	English (?).
Togata...	– w e	s m –	4	2	1	?	5	English.
Pumilata.....	i w e	s m n	15	8	10	5	8	British.
Coronata.....	i w e	s m –	14	1	8	–	7	English.
Rectangulata...	i w e	s m n	17	11	10	5	13	British.
Debiliata	i w –	s – –	3	–	3	–	–	Atlantic.
COLLIX.								
Sparsata.....	– – e	s m –	2	1	–	–	3	Local.
LOBOPHORA.								
Sexalata	i w e	s m –	9	3	4	–	8	English.
Hexapterata ...	– w e	s m ?	11	5	6	?	10	English.
Viretata	i w e	s m –	11	2	5	1	7	English.
Lobulata.....	– w e	s m n	11	10	8	5	8	British.
Polycommata...	– w e	s m –	5	1	3	?	3	English.

THERA.	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
Juniperata	– w e	s m ?	2	1	?	1	2	Local.
Simulata.....	– w e	s m n	7	8	3	4	8	British.
Variata	i w e	s m n	12	11	7	7	9	British.
Firmata	– w e	s m n	9	9	5	4	9	English.
HYPSIPETES.								
Ruberata.....	– w e	s m –	7	3	2	–	8	English.
Impluviata.....	i w e	s m n	13	11	7	5	12	British.
Elutata	i w e	s m n	14	12	9	6	11	British.
MELANTHIA.								
Rubiginata.....	i w e	s m n	14	11	8	5	12	British.
Ocellata	i w e	s m n	15	11	10	5	11	British.
Albicillata	i w e	s m –	17	7	11	1	12	English.
MELANIPPE.								
Hastata	i w e	s m n	11	11	6	5	11	British.
Tristata	i w e	s m n	1	7	1	4	3	Scottish.
Procellata	– w e	s – –	13	–	6	–	7	English.
Unangulata	i w e	s m ?	13	1	7	?	7	English.
Rivata.....	i w e	s m –	13	1	7	–	7	English.
Biriviata, Bork.. [*Subtristata.*]	i w e	s m n	15	10	10	4	11	British.
Montanata	i w e	s m n	16	12	11	6	11	British.
Galiata	i w e	s m n	13	8	10	3	8	English.
Fluctuata	i w e	s m n	16	10	10	4	12	British.
ANTICLEA.								
Sinuata	– w e	s – –	6	–	2	–	4	English.
Rubidata.....	– w e	s m –	13	1	7	–	7	English.
Badiata	i w e	s m n	14	11	8	5	12	British.
Derivata.....	i w e	s m n	13	11	8	5	11	British.
Berberata	– w e	s m –	4	1	2	–	3	English.
COREMIA.								
Munitata.....	i w e	– m n	–	8	2	4	2	Scottish.
Propugnata	i w e	s m n	15	12	9	6	12	British.
Ferrugata.	i w e	s m n	16	12	10	6	12	British.
Quadrifasciaria	i w e	s ? –	9	?	2	?	7	English.
CAMPTOGRAMMA.								
Bilineata.....	i w e	s m n	14	11	9	5	11	British.
Fluviata	i w e	s m –	8	2	5	–	5	English.
PHIBALAPTERYX.								
Tersata	– w e	s ? –	13	?	5	–	8	English.
Lapidata.....	– w e	– – n	–	2	–	2	–	Scottish.
Lignata	i w e	s m n	10	6	4	3	9	English.
Polygrammata..	– ? e	s ? –	1	?	?	–	1	Local.
Vitalbata.....	– w e	s ? –	12	?	5	–	7	English.
SCOTOSIA.								
Dubitata.....	i w e	s m –	15	8	9	2	12	English.
Vetulata	– w e	s m –	10	1	4	–	7	English.
Rhamnata	– w e	s m –	11	1	4	–	8	English.
Certata	i w e	s ? –	11	?	4	–	7	English.
Undulata	i w e	s m –	13	4	8	?	9	English.
CIDARIA.								
Psittacata	i w e	s m n	10	8	7	3	8	British.
Miata	i w e	s m n	14	14	8	8	12	British.
Picata.....	– w e	s ? ?	11	?	4	?	7	English.
Corylata.....	i w e	s m n	13	10	8	4	11	British.
Sagittata.....	– – e	s – –	1	–	–	–	1	Local.
Russata	i w e	s m n	16	12	10	6	12	British.
Immanata	i w e	s m n	15	13	10	7	11	British.
Suffumata	i w e	s m n	13	11	8	5	11	British.
Silaceata.....	i w e	s m n	14	12	8	6	12	British.

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
Reticulata, w. v.	– w –	– m –	–	1	1	–	–	Local.
Prunata	i w e	s m n	14	11	8	5	12	British.
Testata	i w e	s m n	13	13	7	7	12	British.
Populata	i w e	s m n	11	12	8	6	9	British.
Fulvata.	i w e	s m n	16	12	10	6	12	British.
Pyraliata	i w e	s m n	14	12	9	6	11	British.
Dotata	i w e	s m –	13	3	7	?	9	English.
PELURGA.								
Comitata.....	i w e	s m ?	10	9	4	3	12	English.
EUBOLIA.								
Cervinaria	i w e	s m –	13	8	6	3	12	English.
Mœniata, Scop.	– ? e	– m –	–	1	?	–	1	Local.
Mensuraria.....	i w e	s m ?	14	9	8	3	12	English.
Palumbaria	i w e	s m n	15	12	9	6	12	British.
Bipunctaria	i w e	s m –	12	3	6	–	9	English.
Lineolata	i w e	s m –	8	1	5	–	4	English.
CARSIA.								
Imbutata.....	i w e	– m n	–	9	2	5	2	Scottish.
ANAITIS.								
Plagiata	i w e	s m n	14	12	8	6	12	British.
LITHOSTEGE.								
Griseata, w.v.... [*Nivearia.*]	– – e	s – –	1	–	–	–	1	Local.
CHESIAS.								
Spartiata	i w e	s m n	10	9	4	6	9	British.
Obliquaria	– w e	s m n	5	4	1	3	5	Local.
TANAGRA.								
Chærophyllata.	i w e	s m n	16	12	9	6	13	British.
Drepanulæ.								
PLATYPTERYX.								
Lacertula	i w e	s m n	11	9	7	3	10	British.
Sicula	– w –	s – –	1	–	1	–	–	Local.
Falcula	i w e	s m n	13	7	7	2	11	British.
Hamula	– w e	s ? –	11	?	5	–	6	English.
Unguicula	– w e	s – –	10	–	4	–	6	English.
CILIX.								
Spinula	i w e	s m n	15	8	9	3	11	English.
Pseudo-Bombyces.								
DICRANURA.								
Bicuspis	– w e	s m –	1	3	1	–	3	English (?).
Furcula	i w e	s m n	12	12	7	6	11	British.
Bifida	i w e	s m –	12	4	5	–	11	English.
Vinula.....	i w e	s m n	14	14	8	8	12	British.
STAUROPUS.								
Fagi.....	– w e	s ? –	10	?	5	–	5	English.
PETASIA.								
Cassinia	i w e	s m –	13	6	8	?	11	English.
Nubeculosa.....	– – e	– – n	–	1	–	1	–	Local.
PYGÆRA.								
Bucephala	i w e	s m n	15	12	9	6	12	British.
CLOSTERA.								
Curtula	i w e	s m –	10	2	3	–	9	English.
Anachoreta,w.v.	– – e	s – –	1	–	–	–	1	Local.
Reclusa	i w e	s m n	10	7	3	5	9	English.
GLYPHISIA.								
Crenata	– – e	s – –	2	–	–	–	2	Local.

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
PTILOPHORA.								
Plumigera	– ? e	s – –	2	–	?	–	2	English.
PTILODONTIS.								
Palpina	i w e	s m –	14	6	8	2	10	English.
NOTODONTA.								
Camelina	i w e	s m n	14	12	9	6	11	British.
Cucullina	– ? e	s – –	4	–	?	–	4	Germanic.
Carmelita	– w e	s m n	4	4	1	2	5	Local.
Bicolor.....	i ? –	? – –	?	–	?	–	–	Local.
Dictæa	i w e	s m n	13	12	7	6	12	British.
Dictæoides.....	i w e	s m n	10	7	5	2	10	English.
Dromedarius ...	i w e	s m n	13	12	8	7	10	British.
Trilophus	– ? e	s ? –	1	?	?	?	1	Local.
Ziczac	i w e	s m n	14	11	7	5	13	British.
Trepida	i w e	s m –	10	3	5	–	8	English.
Chaonia	i w e	s m n	11	5	6	1	9	English.
Dodonæa.....	i w e	s m ?	11	3	5	?	9	English.
DILOBA.								
Cæruleocephala	i w e	s m ?	13	7	8	1	11	English.

Noctuæ.

THYATIRA.								
Derasa.....	i w e	s m –	15	5	9	–	11	English.
Batis	i w e	s m n	17	11	11	5	12	British.
CYMATOPHORA.								
Duplaris	i w e	s m n	15	12	9	6	12	British.
Fluctuosa	i w e	s m –	5	2	3	–	4	English.
Diluta	i w e	s m –	12	6	7	1	10	English.
Or.....	i w e	s ? ?	8	?	2	?	6	English.
Ocularis	i w e	s – –	5	–	2	–	3	Local.
Flavicornis.....	i w e	s m n	8	9	6	4	7	British.
Ridens	– w e	s m –	8	2	5	–	5	English.
BRYOPHILA.								
Glandifera	– w e	s – –	9	–	6	–	3	English.
Perla	i w e	s m n	14	10	8	4	12	English.
Algæ, Fab.....	– w –	– m –	–	1	1	–	–	Local.
DIPHTHERA.								
Orion	– w e	s ? –	6	?	2	–	4	English.
ACRONYCTA.								
Tridens	i w e	s m ?	14	3	6	?	11	English.
Psi	i w e	s m n	15	14	9	7	13	British.
Leporina.....	i w e	s m n	12	10	8	4	10	British.
Aceris	i w e	s m –	10	?	2	?	8	English.
Megacephala ...	i w e	s m –	13	4	7	–	10	English.
Strigosa	– – e	s – –	1	–	–	–	1	Local.
Alni	i w e	s m –	11	4	6	–	9	English.
Ligustri	i w e	s m n	15	9	9	4	11	British.
Rumicis	i w e	s m n	15	13	9	7	12	British.
Auricoma	– ? e	s ? –	2	?	?	–	2	Local.
Menyanthidis...	– w e	s m n	2	8	3	4	3	Scottish.
Myricæ	i ? e	– – n	–	3	–	3	–	Scottish.
SIMYRA.								
Venosa.	– – e	s – –	2	–	–	–	2	Local.
SYNIA.								
Musculosa	– – e	s – –	1	–	–	–	1	Local.
LEUCANIA.								
Conigera.....	i w e	s m n	17	9	11	3	12	English.
Vitellina.....	– – e	s – –	2	–	–	–	2	Local.
Turca	– w e	s m –	3	1	1	?	3	English.

	LONG.			LAT.			S.	N.	W.	SC.	E.	TYPE.
Lithargyria.....	i	w	e	s	m	n	14	9	9	3	11	English.
Extranea, Gn...	–	–	e	s	–	–	2	–	–	–	2	Local.
Obsoleta	i	–	e	s	–	–	1	–	–	–	1	Germanic (?).
Loreyi, Dup. ...	–	–	e	s	–	–	1	–	–	–	1	Local.
Littoralis	i	w	e	s	m	–	5	1	4	?	2	English.
Putrescens, Hb.	–	w	–	s	–	–	1	–	1	–	–	Local.
Pudorina.....	i	w	e	s	m	–	5	1	1	–	5	English.
Comma	i	w	e	s	m	n	15	8	9	2	12	English.
Straminea	–	w	e	s	–	–	4	–	1	–	3	English.
Impura	i	w	e	s	m	n	16	12	9	6	13	British.
Pallens	i	w	e	s	m	n	16	11	9	5	13	British.
Phragmitidis ...	?	–	e	s	?	–	4	–	–	–	4	Germanic.
MELIANA.												
Flammea.....	–	–	e	s	–	–	1	–	–	–	1	Local.
SENTA.												
Ulvæ	–	–	e	s	–	–	2	–	–	–	2	Local.
TAPINOSTOLA.												
Bondii, Knaggs.	–	w	e	s	–	–	2	–	1	–	1	Local.
Elymi, Tr.	–	–	e	s	–	–	1	–	–	–	1	Local.
NONAGRIA.												
Despecta.....	i	w	e	s	m	–	5	1	1	–	5	English.
Fulva	i	w	e	s	m	n	15	13	9	7	12	British.
Concolor	?	–	e	s	?	–	1	–	–	–	1	Local.
Hellmanni	–	–	e	s	–	–	1	–	–	–	1	Local.
Neurica	–	–	e	s	–	–	2	–	–	–	2	Local.
Brevilinea, Fen.	–	–	e	s	–	–	1	–	–	–	1	Local.
Geminipuncta .	–	w	e	s	–	–	3	–	1	–	2	Local.
Cannæ	–	?	e	s	?	–	2	?	?	–	2	Germanic.
Typhæ	i	w	e	s	m	–	13	4	6	–	11	English.
Lutosa	–	w	e	s	m	?	11	4	6	?	9	English.
GORTYNA.												
Flavago	i	w	e	s	m	?	14	5	7	?	12	English.
HYDRŒCIA.												
Nictitans	i	w	e	s	m	n	14	14	8	8	12	British.
Petasitis	i	w	e	?	m	n	?	4	2	2	?	Scottish.
Micacea	i	w	e	s	m	n	14	12	8	6	12	British.
AXYLIA.												
Putris	i	w	e	s	m	n	16	11	9	5	13	British.
XYLOPHASIA.												
Rurea	i	w	e	s	m	n	16	11	11	5	11	British.
Lithoxylea	i	w	e	s	m	n	15	10	10	4	11	English.
Sublustris	i	w	e	s	m	–	10	3	3	–	10	English.
Polyodon.....	i	w	e	s	m	n	16	12	10	6	12	British.
Hepatica.....	i	w	e	s	m	–	16	6	9	1	12	English.
Scolopacina ...	–	w	e	s	m	–	8	4	4	–	8	English.
DIPTERYGIA.												
Pinastri	–	w	e	s	?	–	9	?	2	–	7	English.
XYLOMIGES.												
Conspicillaris...	–	w	e	s	–	–	2	–	1	–	1	Local.
APOROPHYLA.												
Australis	–	w	e	s	–	–	5	–	2	–	3	English.
LAPHYGMA.												
Exigua	–	?	e	s	–	–	3	–	?	–	3	Germanic.
NEURIA.												
Saponariæ	?	w	e	s	m	–	12	2	4	–	10	English.
HELIOPHOBUS.												
Popularis	i	w	e	s	m	n	14	9	8	3	12	English.
Hispidus	–	w	e	s	–	–	3	–	2	–	1	Atlantic.

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
CHARÆAS.								
Graminis.....	i w e	s m n	12	13	7	7	11	British.
PACHETRA.								
Leucophæa.....	– – e	s – –	1	–	–	–	1	Local.
CERIGO.								
Cytherea.....	i w e	s m –	14	6	9	1	10	English.
LUPERINA.								
Testacea	i w e	s m n	14	10	9	4	11	British.
Gueneei, Dbl....	– w –	s – –	1	–	1	–	–	Local.
Dumerili.....	– w ?	? – n	?	1	?	1	?	Local.
Cæspitis	i w e	s m ?	8	4	4	?	8	English.
CRYMODES.								
Exulis	– w e	– – n	–	2	–	2	–	Scottish.
MAMESTRA.								
Abjecta	i w e	s m –	9	3	4	–	8	English.
Anceps	i w e	s m –	12	5	5	1	11	English.
Albicolon	i w e	s m –	3	3	4	–	2	Intermediate.
Furva	i w e	s m n	8	6	6	4	4	British (?).
Brassicæ	i w e	s m n	14	12	8	6	12	British.
Persicariæ	i w e	s m ?	14	2	7	?	9	English.
APAMEA.								
Basilinea.....	i w e	s m n	12	12	7	6	11	British.
Connexa	– – e	? m –	?	2	–	–	2	Intermediate(?).
Gemina	i w e	s m n	13	10	8	5	10	British.
Unanimis	i w e	s m –	12	6	5	1	12	English.
Ophiogramma...	? – e	s ? –	2	?	–	–	2	Germanic (?).
Fibrosa	i ? e	s m –	6	1	?	?	7	English.
Oculea.....	i w e	s m n	14	11	8	5	12	British.
MIANA.								
Strigilis	i w e	s m n	15	12	10	6	11	British.
Fasciuncula ...	i w e	s m n	16	10	9	4	13	British.
Literosa	i w e	s m ?	13	7	7	1	12	English.
Furuncula	i w e	s m n	14	10	8	4	12	English.
Arcuosa	– w e	s m n	12	10	8	4	10	English.
PHOTEDES.								
Captiuncula, Tr. [*Expolita.*]	i ? e	– m –	–	1	?	–	1	Local.
CELÆNA.								
Haworthii	i w e	s m n	4	8	3	4	5	British (?).
GRAMMESIA.								
Trilinea	i w e	s m –	15	7	9	1	12	English.
HYDRILLA.								
Palustris, Hüb..	– – e	s m –	1	1	–	–	2	Local.
ACOSMETIA.								
Caliginosa	– – e	s – –	1	–	–	–	1	Local.
CARADRINA.								
Morpheus	– w e	s m –	13	7	6	2	12	English.
Alsines	– w e	s m –	11	2	5	–	8	English.
Blanda.....	i w e	s m –	12	6	6	1	11	English.
Cubicularis.....	i w e	s m n	15	12	9	6	12	British.
RUSINA.								
Tenebrosa	i w e	s m n	14	12	8	6	12	British.
AGROTIS.								
Valligera.....	i w e	s m n	9	8	6	4	7	British (?).
Puta.....	– w e	s m –	13	2	6	?	9	English.
Suffusa.....	i w e	s m n	14	11	8	5	12	English.
Saucia.....	i w e	s m ?	13	7	8	2	10	English.
Segetum	i w e	s m n	15	11	9	5	12	British.
Lunigera.....	i w e	s m ?	3	1	2	1	1	Local.
Exclamationis ..	i w e	s m n	15	13	9	7	12	British.

	LONG.			LAT.			S.	N.	W.	SC.	E.	TYPE.
Corticea	i	w	e	s	m	?	14	6	8	2	10	English.
Cinerea	–	w	e	s	–	–	6	–	3	–	3	English.
Ripæ	i	w	?	s	m	–	3	1	4	–	?	Atlantic (?).
Cursoria	i	w	e	s	m	?	8	5	7	2	4	English.
Nigricans	i	w	e	s	m	n	14	9	7	5	11	British.
Tritici	i	w	e	s	m	n	12	10	7	4	11	British.
Aquilina	i	w	e	s	m	?	12	2	6	?	8	English.
Obelisca	i	w	e	s	m	–	2	4	1	1	4	Local.
Agathina.....	i	w	e	s	m	n	5	4	1	2	6	Local.
Porphyrea	i	w	e	s	m	n	13	12	8	6	11	British.
Præcox	i	w	e	s	m	n	8	5	7	3	3	English.
Ravida.....	?	w	e	s	m	–	10	3	4	1	8	English.
Pyrophila	–	w	e	s	m	n	7	5	7	2	3	Local.
Lucernea.....	i	w	e	s	m	n	4	3	2	3	2	Local.
Ashworthii	–	w	–	s	–	–	1	–	1	–	–	Local.
TRYPHÆNA.												
Ianthina	i	w	e	s	m	n	15	13	9	7	12	British.
Fimbria	i	w	e	s	m	n	15	13	9	7	12	British.
Interjecta	i	w	e	s	m	–	15	4	8	–	11	English.
Subsequa.....	i	w	e	s	m	–	3	1	1	–	3	Local.
Orbona	i	w	e	s	m	n	16	13	10	7	12	British.
Pronuba	i	w	e	s	m	n	15	12	9	6	12	British.
NOCTUA.												
Glareosa	i	w	e	s	m	n	8	11	5	5	9	British.
Depuncta	–	w	e	s	m	n	2	4	3	1	2	Intermediate.
Augur	i	w	e	s	m	n	12	12	7	6	11	British.
Plecta	i	w	e	s	m	n	15	12	9	6	12	British.
Flammatra,Fab.	–	–	e	s	–	–	1	–	–	–	1	Local.
C-nigrum	i	w	e	s	m	n	15	12	9	6	12	British.
Ditrapezium ...	i	w	e	s	–	–	5	–	2	–	3	English.
Triangulum ...	i	w	e	s	m	?	15	5	8	?	12	English.
Rhomboidea ...	–	?	e	s	m	–	3	1	?	?	4	English (?).
Brunnea	i	w	e	s	m	n	15	12	9	6	12	British.
Festiva	i	w	e	s	m	n	14	11	9	5	11	British.
Conflua	–	?	e	–	?	n	–	1	?	1	–	Scottish.
Dahlii	i	w	e	s	m	?	4	5	3	?	6	English.
Subrosea.....	–	?	e	s	–	–	2	–	?	–	2	Local.
Rubi.....	i	w	e	s	m	?	14	7	8	2	11	English.
Umbrosa.....	i	w	e	s	m	n	14	11	8	5	12	British.
Baia.....	i	w	e	s	m	n	13	11	8	5	11	British.
Sobrina	–	–	e	–	–	n	–	1	–	1	–	Local.
Neglecta.....	i	w	e	s	m	?	6	3	4	?	5	English.
Xanthographa..	i	w	e	s	m	n	14	12	8	6	12	British.
TRACHEA.												
Piniperda	–	w	e	s	m	n	10	10	6	5	9	British.
PACHNOBIA.												
Alpina	–	–	e	–	–	n	–	1	–	1	–	Highland.
TÆNIOCAMPA.												
Gothica	i	w	e	s	m	n	15	13	9	7	12	British.
Leucographa ...	–	w	e	s	m	–	6	3	3	–	6	English.
Rubricosa	i	w	e	s	m	n	14	11	8	5	12	British.
Instabilis.....	i	w	e	s	m	n	15	10	9	5	11	British.
Opima	–	w	e	s	m	–	2	4	3	?	3	Intermediate.
Populeti	i	w	e	s	m	?	11	5	7	?	9	English.
Stabilis	i	w	e	s	m	n	15	11	9	5	12	British.
Gracilis	i	w	e	s	m	?	14	7	8	1	12	English.
Miniosa	–	w	e	s	m	–	10	3	6	–	7	English.
Munda.....	i	w	e	s	m	–	16	6	10	1	11	English.
Cruda	i	w	e	s	m	?	15	5	10	?	10	English.

ORTHOSIA.	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
Suspecta	– w e	? m ?	?	6	2	1	3	Intermediate.
Upsilon	i w e	s m –	12	5	5	–	12	English.
Lota.....	i w e	s m n	14	9	8	3	12	English.
Macilenta	i w e	s m n	14	8	8	2	12	English.
ANCHOCELIS.								
Rufina	i w e	s m n	15	10	9	5	11	British.
Pistacina.....	i w e	s m –	15	5	8	1	11	English.
Lunosa.....	i w e	s m –	16	9	10	3	12	English.
Litura	i w e	s m n	14	11	8	5	12	British.
CERASTIS.								
Vaccinii	i w e	s m n	16	13	10	7	12	British.
Spadicea	i w e	s m ?	14	7	8	1	12	English.
Erythrocephala.	– w e	s ? –	5	–	2	–	3	English.
SCOPELOSOMA.								
Satellitia.....	i w e	s m n	16	12	10	6	12	British.
DASYCAMPA.								
Rubiginea	i w e	s – –	8	–	4	–	4	English.
OPORINA.								
Croceago.....	i w e	s ? –	8	?	4	–	4	English.
XANTHIA.								
Citrago	i w e	s m –	12	4	7	?	9	English.
Cerago.....	i w e	s m n	15	12	9	6	12	British.
Silago	i w e	s m n	15	8	9	2	12	British (?).
Aurago	? w e	s ? –	9	?	2	–	7	English.
Gilvago	– w e	s m ?	3	3	2	?	4	Intermediate.
Ferruginea.....	i w e	s m n	14	10	8	5	11	British.
CIRRHŒDIA.								
Xerampelina ...	– w e	s m ?	10	4	5	?	9	English.
TETHEA.								
Subtusa	– w e	s m ?	13	5	7	?	11	English.
Retusa.....	– w e	s m –	10	2	4	?	8	English.
EUPERIA.								
Fulvago	? w e	? m –	?	2	1	–	1	Local.
DICYCLA.								
Oo	– w e	s – –	6	–	1	–	5	English.
COSMIA.								
Trapezina	i w e	s m n	14	11	8	6	11	British.
Pyralina	– w e	s – –	6	–	1	–	5	Germanio (?).
Diffinis	– w e	s m –	14	2	6	–	10	English.
Affinis.....	i w e	s m –	14	2	6	–	10	English.
EREMOBIA.								
Ochroleuca.....	– w e	s m –	8	1	3	–	6	English.
DIANTHŒCIA.								
Carpophaga ...	? w e	s m –	13	7	7	1	12	English.
Capsophila,Bdv.	i w –	? m –	?	1	1	–	–	Local.
Capsincola	i w e	s m ?	15	8	9	2	12	English.
Cucubali.....	i w e	s m n	13	11	7	5	12	British.
Conspersa	i w e	s m n	9	8	5	4	8	English.
Barrettii, Dbl...	i – –	– – –	–	–	–	–	–	
Cæsia, W. V.....	i w –	– m –	–	1	1	–	–	Local.
HECATERA.								
Dysodea	i w e	s – –	8	–	2	–	6	English.
Serena.....	i w e	s m –	11	1	4	–	8	English.
POLIA.								
Chi	i w e	s m n	5	12	5	6	6	Intermediate.
Flavicincta.....	i w e	s m –	13	4	5	–	12	English.
Nigrocincta,Och.	– w –	– m –	–	1	1	–	–	Local.
DASYPOLIA.								
Templi	i w e	s m ?	4	4	4	?	4	English (?).

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
EPUNDA.								
Lutulenta	i w e	s m ?	6	1	3	?	4	English.
Nigra	– w e	s m n	7	2	4	1	4	English.
Viminalis	i w e	s m ?	14	4	6	1	11	English.
Lichenea.....	i w e	s m –	3	1	3	–	1	Local.
VALERIA.								
Oleagina.....	– w –	s – –	1	–	1	–	–	Local.
MISELIA.								
Oxyacanthæ ...	i w e	s m n	15	12	9	6	12	British.
AGRIOPIS.								
Aprilina	i w e	s m n	13	11	8	5	11	British.
PHLOGOPHORA.								
Meticulosa	i w e	s m n	18	12	11	6	13	British.
Empyrea	– – e	s – –	1	–	–	–	1	Local.
EUPLEXIA.								
Lucipara.....	i w e	s m n	14	12	9	6	11	British.
APLECTA.								
Herbida	i w e	s m n	16	10	11	4	11	English.
Occulta	– w e	s m n	4	6	2	3	5	British (?).
Nebulosa.....	i w e	s m n	13	11	8	5	11	British.
Tincta.....	– w e	s ? n	7	2	3	2	4	English (?).
Advena	– w e	s m n	12	7	5	3	11	English.
HADENA.								
Satura.....	? – e	s – ?	2	?	–	?	2	Local.
Adusta.....	i w e	s m n	14	13	8	7	12	British.
Protea	i w e	s m ?	13	8	8	3	10	English.
Glauca.....	– w e	s m n	3	7	4	4	2	Intermediate.
Dentina	i w e	s m n	13	12	8	6	11	British.
Peregrina	– – e	s – –	1	–	–	–	1	Local.
Chenopodii.....	i w e	s ? –	11	?	5	?	6	English.
Atriplicis	– ? e	s ? –	4	?	?	–	4	Germanic.
Suasa	i w e	s m –	11	4	5	?	10	English.
Oleracea.....	i w e	s m n	16	11	10	5	12	British.
Pisi	i w e	s m n	15	11	8	5	13	British.
Thalassina	i w e	s m n	16	12	11	6	11	British.
Contigua	i w e	s m n	8	4	5	2	5	English (?).
Genistæ	i w e	s ? –	10	?	3	?	7	English.
Rectilinea	i w e	– m n	–	4	–	3	1	Scottish.
XYLOCAMPA.								
Lithorhiza	i w e	s m –	14	7	8	1	12	English.
CLOANTHA.								
Perspicillaris...	– – e	s – –	2	–	–	–	2	Local.
Solidaginis.....	– w e	? m ?	?	2	1	?	1	Local.
CALOCAMPA.								
Vetusta	i w e	s m n	13	12	7	7	11	British.
Exoleta	i w e	s m n	16	12	10	6	12	British.
XYLINA.								
Conformis, W. V.	– w –	s – –	1	–	1	–	–	Local.
Rhizolitha	i w e	s m –	16	2	9	–	9	English.
Semibrunnea ...	– w e	s ? –	10	?	5	?	5	English.
Petrificata	i w e	s m –	9	2	7	1	3	English.
Zinckenii, Tr...	– – e	s – –	1	–	–	–	1	Local.
CUCULLIA.								
Verbasci.....	i w e	s m –	14	1	6	–	9	English.
Scrophulariæ...	– w e	s – –	5	–	2	–	3	English.
Lychnitis	– ? e	s – –	2	–	?	–	2	Local (?).
Asteris	– ? e	s – –	2	–	?	–	2	Germanic (?).
Gnaphalii	– – e	s – –	2	–	–	–	2	Germanic.
Absinthii	– w e	s ? –	4	?	2	–	2	English.
Chamomillæ ...	i w e	s m –	8	2	4	1	5	English.

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
Umbratica	i w e	s m n	14	12	8	6	12	British.
HELIOTHIS.								
Marginatus.....	– w e	s m –	13	3	6	–	10	English.
Peltiger	– w e	s m –	9	1	6	?	4	English.
Armiger	– w e	s m –	8	1	4	–	5	English.
Dipsaceus	– w e	s m –	4	2	1	–	5	Germanic (?).
ANARTA.								
Melanopa	– – e	– – n	–	1	–	1	–	Highland (?).
Cordigera	– – e	– – n	–	1	–	1	–	Highland (?).
Myrtilli	i w e	s m n	9	12	5	6	10	British.
HELIODES.								
Arbuti.....	– w e	s m –	13	6	8	?	11	English.
AGROPHILA.								
Sulphuralis.....	– ? e	s – –	3	–	?	–	3	Germanic (?).
ACONTIA.								
Luctuosa.....	– w e	s – –	9	–	4	–	5	English.
Solaris, W. V. ...	– – e	s – –	1	–	–	–	1	Local.
ERASTRIA.								
Venustula	– – e	s – –	2	–	–	–	2	Germanic.
Fuscula	i w e	s m ?	14	1	8	?	7	English.
BANKSIA.								
Argentula	i – e	s – –	2	–	–	–	2	Local.
HYDRELIA.								
Unca	i w e	s m –	5	3	3	?	5	Local.
MICRA.								
Ostrina	– w e	s ? –	2	?	1	?	1	Atlantic.
Parva	– w –	s – –	2	–	2	–	–	Atlantic.
BREPHOS.								
Parthenias	– w e	s m n	7	6	4	2	7	British (?).
Notha	– w e	s m –	7	1	1	–	7	English.
HABROSTOLA.								
Urticæ.....	i w e	s m n	14	12	8	6	12	British.
Triplasia.....	i w e	s m –	14	8	8	3	11	English.
PLUSIA.								
Orichalcea	– w e	s – –	3	–	2	–	1	English.
Chrysitis.....	i w e	s m n	15	12	9	6	12	British.
Bractea	i w e	s m n	2	9	4	6	1	Scottish.
Festucæ	i w e	s m n	9	12	5	6	10	British.
Iota	i w e	s m n	15	13	9	7	12	British.
V-aureum	i w e	s m n	13	11	8	5	11	British.
Gamma	i w e	s m n	15	12	9	6	12	British.
Interrogationis.	– w e	s m n	2	9	4	3	4	Scottish.
GONOPTERA.								
Libatrix	i w e	s m n	15	12	9	6	12	British.
AMPHIPYRA.								
Pyramidea	i w e	s m –	14	4	7	–	11	English.
Tragopogonis...	i w e	s m n	15	10	9	4	12	British.
MANIA.								
Typica.....	i w e	s m n	14	12	8	6	12	British.
Maura.....	i w e	s m n	13	10	8	4	11	English.
TOXOCAMPA.								
Pastinum	– w e	s m –	8	2	3	–	7	English.
Craccæ, W. V....	– w –	s – –	1	–	1	–	–	Local.
STILBIA.								
Anomala	i w e	s m n	7	5	6	2	4	English (?).
CATEPHIA.								
Alchymista.....	– – e	s – –	1	–	–	–	1	Local.
CATOCALA.								
Fraxini	i w e	s m –	5	1	1	–	5	English.

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
Nupta	i w e	s m –	13	1	5	–	9	English.
Promissa.....	– w e	s ? –	5	–	1	–	4	Germanic.
Sponsa.....	– – e	s – –	3	–	–	–	3	Germanic.
OPHIODES.								
Lunaris	i – e	s – –	2	–	–	–	2	Local.
EUCLIDIA.								
Mi	i w e	s m n	16	12	10	6	12	British.
Glyphica	i w e	s m n	16	10	10	4	12	English.
PHYTOMETRA.								
Ænea	i w e	s m n	16	12	10	6	12	British.
Deltoidæ.								
MADOPA.								
Salicalis	– – e	s – –	1	–	–	–	1	Local.
HYPENA.								
Proboscidalis...	i w e	s m n	16	9	10	4	11	British.
Rostralis.....	i w e	s ? –	11	?	3	–	8	English.
Crassalis.....	i w e	s m –	6	1	3	–	4	English.
HYPENODES.								
Albistrigalis ...	– w e	s m –	11	1	5	–	7	English.
Costæstrigalis..	– w e	s m ?	13	4	7	?	10	English.
SCHRANKIA.								
Turfosalis	i w e	s m –	2	2	2	–	2	English.
RIVULA.								
Sericealis	i w e	s m n	14	5	8	1	10	English.
SOPHRONIA.								
Emortualis.....	– – e	s – –	3	–	–	–	3	Germanic.
HERMINIA.								
Derivalis.....	– ? e	s ? –	2	?	?	–	2	Germanic (?).
Barbalis	i w e	s m –	13	2	5	–	10	English.
Tarsipennalis...	i w e	s m –	15	6	9	1	11	English.
Griscalis.....	i w e	s m –	14	5	9	–	10	English.
Cribralis.....	– – e	s – –	4	–	–	–	4	Germanic.
Aventiæ.								
AVENTIA.								
Flexula	– w e	s m –	10	1	3	–	8	Germanic.
Pyralides.								
ODONTIA								
Dentalis.....	– ? e	s – –	2	–	?	–	2	Germanic.
PYRALIS.								
Fimbrialis	– ? e	s ? –	7	?	?	–	7	Germanic.
Farinalis.....	i w e	s m n	14	6	7	3	10	British.
Glaucinalis.....	– w e	s m –	7	3	2	–	8	English.
AGLOSSA.								
Pinguinalis.....	i w e	s m n	14	9	8	5	10	British.
Cuprealis	– w e	s – –	4	–	1	–	3	Germanic (?).
CLEDEOBIA.								
Angustalis	– w e	s m –	7	1	2	–	6	English.
PYRAUSTA.								
Punicealis	i w e	s m n	14	11	9	5	11	British.
Purpuralis	i w e	s m n	15	10	9	4	12	British.
Ostrinalis	i w e	s m n	11	8	6	2	11	English.
RHODARIA.								
Sanguinalis.....	i w ?	? m –	?	1	1	?	?	Local.
HERBULA.								
Cæspitalis	i w e	s m n	11	8	6	4	9	British.
ENNYCHIA.								
Cingulalis	– w e	s m n	9	8	6	4	7	British.

	LONG.			LAT.			S.	N.	W.	SC.	E.	TYPE.
Anguinalis.....	i	w	e	s	m	–	10	1	5	–	6	English.
Octomaculalis..	i	w	e	s	m	n	8	5	5	2	6	British.
AGROTERA.												
Nemoralis	–	–	e	s	–	–	1	–	–	–	1	Local.
ENDOTRICHA.												
Flammealis	i	w	e	s	–	–	10	–	4	–	6	English.
DIASEMIA.												
Literalis	–	w	e	s	m	–	5	1	2	–	4	English.
Ramburialis ...	–	w	e	s	–	–	2	–	1	–	1	Local.
NASCIA.												
Cilialis	–	–	e	s	–	–	1	–	–	–	1	Local.
STENIA.												
Punctalis	–	w	e	s	–	–	6	–	4	–	2	English.
CATACLYSTA.												
Lemnalis.....	i	w	e	s	m	–	13	3	7	1	8	English.
PARAPONYX.												
Stratiotalis.....	i	w	e	s	m	–	15	4	7	–	12	English.
HYDROCAMPA.												
Nymphæalis ...	i	w	e	s	m	n	14	10	8	4	12	British.
Stagnalis	i	w	e	s	m	–	14	3	7	1	9	English.
BOTYS.												
Lupulinalis	–	w	e	s	m	–	1	1	1	–	1	Local.
Pandalis	i	w	e	s	m	–	8	4	5	–	7	English.
Flavalis	–	w	e	s	–	–	6	–	2	–	4	English.
Hyalinalis	–	w	e	s	–	–	6	–	1	–	5	Germanic (?).
Verticalis	i	w	e	s	m	–	15	4	8	–	11	English.
Lancealis	–	w	e	s	–	–	10	–	5	–	5	English.
Fuscalis	i	w	e	s	m	n	13	8	8	5	8	British.
Terrealis.....	–	w	?	s	m	?	2	2	4	?	?	Local.
Asinalis	–	w	e	s	–	–	6	–	5	–	1	English.
Urticalis.....	i	w	e	s	m	n	14	8	7	3	12	English.
EBULEA.												
Crocealis.....	i	w	e	s	m	?	15	6	9	?	12	English.
Verbascalis.....	–	?	e	s	?	–	5	?	?	–	5	Germanic (?).
Sambucalis.....	i	w	e	s	m	–	12	3	6	–	9	English.
Catalaunalis,Dp.	–	–	e	s	–	–	1	–	–	–	1	Local.
PIONEA.												
Forficalis	i	w	e	s	m	n	15	11	9	5	12	British.
Margaritalis ...	–	?	e	s	–	–	5	–	?	–	5	Germanic.
Straminalis ...	i	w	e	s	–	–	7	–	1	–	6	English.
SPILODES.												
Sticticalis	i	w	e	s	m	n	7	4	3	1	7	English.
Palealis	–	?	e	s	–	–	3	–	?	–	3	Germanic.
Cinctalis	–	w	e	s	–	–	12	–	5	–	7	English.
MARGARODES.												
Unionalis, Hüb.	–	w	–	s	–	–	1	–	1	–	–	Local.
SCOPULA.												
Alpinalis.....	–	w	e	–	–	n	–	3	–	3	–	Highland.
Lutealis	i	w	e	s	m	n	13	10	8	4	11	British.
Olivalis	i	w	e	s	m	–	15	4	8	–	11	English.
Prunalis	i	w	e	s	m	n	14	5	7	2	10	English.
Ferrugalis	i	w	e	s	m	–	11	2	7	?	6	English.
Decrepitalis ...	–	w	e	–	–	n	–	3	–	3	–	Scottish.
MECYNA.												
Polygonalis	–	–	e	s	–	–	1	–	–	–	1	Local.
STENOPTERYX.												
Hybridalis.....	i	w	e	s	m	n	13	7	7	3	10	English (?).
SCOPARIA.												
Ambigualis ...	i	w	e	s	m	n	11	4	8	3	4	English.

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
Ulmella, Dale...	– – e	s – –	1	–	–	–	1	Local.
Ingratella, Zel..	– – e	s – –	1	–	–	–	1	Local.
Basistrigalis, Kgs.	– w e	s – –	4	–	2	–	2	Local.
Cembralis	i w e	s m –	9	4	5	2	6	English.
Pyralalis.....	i w e	s m n	7	4	4	3	4	English.
Muralis	i w e	s m n	2	6	3	3	2	British.
Lineolalis	i w e	s m n	7	3	3	2	5	British (?).
Mercurialis	i w e	s m ?	7	1	5	?	3	English.
Cratægalis.....	i w e	s m –	6	3	4	1	4	English.
Resinalis.....	i w e	s ? –	4	?	1	–	3	English.
Phæoleucalis ...	– w –	s – –	1	–	1	–	–	Local.
Truncicolalis...	– w e	s m –	5	2	2	–	5	English.
Coarctalis	i w e	s m –	8	5	7	1	5	English.
Atomalis.....	– ? e	? – n	?	1	?	1	?	Scottish (?).
Gracilalis	– ? e	– ? n	–	1	?	1	–	Scottish (?).
Paralis.....	– – e	? – n	?	1	–	1	?	Scottish (?).
Pallidulalis ...	– w e	s m ?	6	3	2	1	6	English.
Crambi.								
PLATYTES.								
Cerussellus.....	– w e	s m –	7	1	4	–	4	English.
CRAMBUS.								
Falsellus.....	– w e	s m n	13	4	9	2	6	British.
Pratellus.....	i w e	s m n	11	6	6	3	8	British.
Dumetellus.....	– w e	s m –	4	2	3	1	2	English.
Ericellus.....	– – e	– – n	–	1	–	1	–	Scottish (?).
Adipellus	i w e	s – –	2	–	1	–	1	Local.
Hamellus	i w e	s m –	4	1	3	–	2	English.
Pascuellus	i w e	s m n	12	4	6	2	8	British.
Uliginosellus ...	– w e	s – –	4	–	1	–	3	Germanic.
Furcatellus.....	– w e	s m n	1	2	2	1	–	Highland.
Margaritellus...	i w e	s m n	6	8	5	4	5	British.
Pinetellus	i w e	s m n	12	6	7	4	7	British.
Latistriellus ...	– w e	s m –	5	1	3	–	3	English.
Perlellus.....	i w e	s m –	13	2	8	–	7	English.
Warringtonellus	– w e	s m –	2	2	3	?	1	English (?).
Selasellus	i w e	s m –	6	3	5	–	4	English.
Tristellus	i w e	s m n	10	8	5	4	9	British.
Pedriolellus ...	– – e	s – –	1	–	–	–	1	Local.
Inquinatellus...	– w e	s m n	9	3	5	1	6	English.
Contaminellus .	– w e	s m –	3	3	3	1	2	Local.
Geniculellus ...	i w e	s m n	10	5	8	3	4	British.
Culmellus	i w e	s m n	12	8	7	3	10	British.
Chrysonychellus	– w e	s – –	7	–	3	–	4	English.
Rorellus	– – e	s – –	2	–	–	–	2	Local.
Cassentiniellus.	– w e	s – –	2	–	1	–	1	Local.
Hortuellus	i w e	s m n	11	8	6	4	9	British.
Paludellus	– w e	s – –	2	–	1	–	1	Local.
Ocellea, Haw....	– w –	s ? –	1	?	1	?	–	Local.
CHILO.								
Cicatricellus ...	– – e	s – –	1	–	–	–	1	Local.
Phragmitellus..	– w e	s m –	6	2	2	–	6	English.
SCHŒNOBIUS.								
Forficellus	i w e	s m –	9	3	4	–	8	English.
Mucronellus ...	– ? e	s ? –	2	?	?	?	2	Local.
Gigantellus	– – e	s ? –	2	?	–	–	2	Local.
ANERASTIA.								
Lotella	i w e	s m –	5	3	4	–	4	English.
Farrella	– – e	s – –	2	–	–	–	2	Local.

	LONG.	LAT.	S.	N.	W.	SC.	E.	TYPE.
ILITHYIA.								
Carnella	– w e	s – –	5	–	3	–	2	English.
MYELOPHILA.								
Cribrella.....	– w e	s – –	6	–	2	–	4	English.
HOMŒOSOMA.								
Sinuella	i w e	s – –	5	–	2	–	3	English.
Nimbella.....	i w e	s m –	5	2	4	–	3	English.
Nebulella	i w e	s m –	4	1	1	–	4	English (?).
Eluviella.....	i w e	s ? –	6	?	3	–	3	English.
NYCTEGRETES.								
Achatinella	– – e	s – –	2	–	–	–	2	Local.
EPHESTIA.								
Elutella	i w e	s m –	7	3	4	–	6	English.
Ficella	– ? e	s ? –	2	?	–	?	2	Local.
Semirufella	– w e	s – –	3	–	1	–	2	Local.
Pingnedinella ..	– w e	s m –	6	2	3	–	5	English.
Cinerosella, Zel. [*Artemisiella.*]	– w e	s – –	2	–	1	–	1	Local.
CRYPTOBLABES.								
Bistrigella	– w e	s m –	9	2	5	–	6	English.
PLODIA.								
Interpunctella ..	– w e	s m –	1	1	1	–	1	Local.
NEPHOPTERYX.								
Angustella	– w –	s – –	2	–	2	–	–	Atlantic (?).
GYMNANCYLA.								
Canella	– – e	s – –	2	–	–	–	2	Local.
PHYCIS.								
Betuletella	– w e	s m –	3	1	2	–	2	English.
Carbonariella ..	i w e	s m n	7	6	6	2	5	British.
Adelphella	– w e	s – –	2	–	1	–	1	Local.
Dilutella.....	i w e	s m –	9	1	4	1	5	English.
Subornatella, Dp.	i w –	– m –	–	1	1	–	–	Local.
Ornatella	i ? e	s – –	2	–	?	–	2	English.
Abietella.....	– w e	s m n	4	4	4	1	3	English.
Roborella	– w e	s m –	9	1	4	–	6	English.
PEMPELIA.								
Palumbella	– w e	s m –	6	2	2	–	6	English.
RHODOPHÆA.								
Formosella.....	– ? e	s – –	2	–	?	–	2	Local.
Consociella.....	– w e	s m –	7	1	4	–	4	English.
Advenella	– w e	s – –	6	–	2	–	4	English.
Marmorella ...	– w e	s ? –	6	?	3	–	3	English.
Suavella	– w e	s – –	3	–	1	–	2	English.
Tumidella	– w e	s – –	6	–	2	–	4	English.
Rubrotibiella...	– ? e	s ? –	1	?	?	–	1	Local.
ONCOCERA.								
Ahenella.....	– w e	s m –	5	2	3	–	4	English.
MELIA.								
Sociella	i w e	s m n	13	8	8	4	9	British.
Anella.....	– – e	s – –	1	–	–	–	1	Local.
GALLERIA.								
Cerella	i ? e	s – –	4	–	?	–	4	Local.
MELIPHORA.								
Alveariella	i w e	s m ?	2	2	1	?	3	Local.

Thomson & Co., Lithe

IV. *A Catalogue of the* Cetoniidæ *of the Malayan Archipelago, with Descriptions of the new Species.* By Alfred R. Wallace, F.Z.S., &c.

[Read 1st July, 1867.]

The following Catalogue is founded mainly upon the specimens collected by myself, with the addition of those found by Mr. Lamb at and near Penang; and I have incorporated all those contained in the Collections of the British Museum and of Major Parry, and have further introduced the names of all the described species of which I have not seen specimens, so as to form as nearly complete a local catalogue as can be done without studying the Continental Collections. In Gory and Percheron's "Monographie des Cétoines," published in 1833, only 45 species were described from the Malayan Islands, and a large portion of these were from the single island of Java. Burmeister's "Handbuch der Entomologie," dated 1842, has 60 species from the same region. The British Museum "List of Cetoniadæ," in 1847, gives 74 species as known, but several of these were undescribed. Lacordaire, in his "Genera des Coléoptères," in 1856, gives a list of 85 described species as found in this district. Since then Thomson has described 9, all collected by myself; Vollenhoven has added 14, obtained from Dutch collectors, and other authors 5; and in this paper are described 68 additional species, (also two from Cambodia),* bringing up the total to 181 Malayan *Cetoniidæ*, not including the *Trichiidæ*.

Taken as a whole the *Cetoniidæ* are decidedly scarce in the equatorial regions. Now and then a species will occur in profusion, but this is an exception; the rule being that single specimens of a very few species are to be found at any one time. There are few groups in which mere collecting will do so little towards obtaining a fair proportion of the species. Fine weather, and good luck in being in the right place at the right time, will help the travelling collector to a few good things; but to obtain any thing like a complete knowledge of the group requires a long residence and the assistance of the whole native population. This is well shown by the comparatively small number of species collected by

* [The whole of the new species were characterized in Proc. Ent. Soc. 1867, pp. xcii—xcvii, published in July, 1867.—Sec. Ent. Soc.]

myself. During eight years most assiduous search, in about thirty different localities, I only obtained 85 species, or considerably less than half the number now known. Compare this with other families. I collected about a thousand species of Longicorns, and I feel certain that the additional species from the Malayan region either described or existing in English collections could not exceed four hundred. So in the *Buprestidæ*, the 355 species collected by me must form a very large proportion of all that are known from the region, for Lacordaire's work does not indicate more than 50 species from the same countries. In the *Papilionidæ*, out of 123 known species I collected myself no less than 92; and of *Pieridæ* 121 out of a total of 169.

The *Cetoniæ* of the Malayan islands are neither so large, so varied, nor so numerous as those of the continent of Asia. The fine horned *Goliathinæ* of the Himalayas are represented only by two species of *Mycteristes* and a few small *Heterorhinæ*, and there is nothing to make up for this deficiency. *Lomaptera*, *Chalcothea*, and *Macronota*, are the most charateristic Malayan genera, and contain many beautiful species, but none exceed the middle size. The number of species found in any one locality seems to be influenced, first, by proximity to the continent, and next, by the mass of the island. The Peninsula of Malacca, though but very partially explored, has 44 species; Java, the best known by far of all the Eastern Islands, has 46; but some of these are book species which may have been already included under other names, and even if they were all distinct, the number is really less in proportion than that of Malacca, when we consider that the whole surface of Java is more or less known, and that the whole island has been for more than a century in the possession of Europeans, while in the Malay Peninsula small collections have been made only in a very few limited localities. Further from the continent, we find the whole group of the Philippines with 32 species; further still, Celebes with 19; Ceram and Amboyna with 11; the Aru Islands with 9, and the great Island of New Guinea with 12,—the slightly increased number being due to its large area, and very many more species remaining to be discovered there. The same diminution in receding from the continent is visible if we divide the Indian from the Australian regions of the Archipelago, the

former (extending as far east as Java, Borneo, and the Philippines) having 114 species, while the latter (stretching from Celebes to the Solomon Islands) has but 70.

This group of insects furnishes us with a very satisfactory confirmation of the view that the division of the Archipelago just alluded to is a truly natural one, however much it may be occasionally masked by special circumstances. No less than nine genera, *Mycteristes, Agestrata, Clerota, Plectrone, Chalcothea, Centrognathus, Rhagopteryx, Macroma,* and *Euremina,* are strictly limited to the Indian region; and two more, *Heterorhina* and *Clinteria,* only pass beyond it into the closely connected chain of islands from Java to Timor, and in the case of a single species into Celebes. Three genera, on the other hand, *Schizorhina, Anacamptorhina,* and *Sternoplus,* are restricted to the Australian region, and the genus *Lomaptera* is almost so, only 3 species out of 25 passing beyond its limits, of which one, *L. striata,* is the most aberrant of the genus, and the other two are closely allied forms which have a wide range on the continent. These remarkable limitations of genera do not accord with the supposition that the whole Archipelago forms a single zoological region, but they strikingly support the view that there is a line of very ancient division between its eastern and western halves, while the divisions between islands and groups of islands within either half are of more recent establishment, and are therefore less efficacious in limiting the range of species or of genera.

In classification I have not attempted to do more than follow Lacordaire, and do not profess to criticize his work in this very difficult family. I have proposed two new genera for species that appear to me strikingly distinct, and I have indicated two others that will probably have to be established when more materials are obtained.

The phenomena of variation are well exhibited here, and there are many cases in which structural characters are not a surer guide to specific distinction than colour or markings. In *Lomaptera pulla* and *Macronota regia* we have insects of wide range, and with such an amount of variation, that few would consider it possible that the extremes, considered alone, could be the same species; but these extremes are united by a series of intermediate forms, many of which occur together in the same locality. In other cases we have allied forms from adjacent islands

which so nearly resemble each other that it seems impossible to separate them, but close examination reveals minute but important differential characters which seem quite constant. Such are *Macronota carbonaria* and *M. egregia*, var. *nigra*; *Schizorhina Whitei* and *S. bouruensis*; *Lomaptera arouensis*, *L. ceramensis*, and *L. cambodiensis*; *Lomaptera pygidialis* and *L. batchiana*, and some others. Such cases force us to the conclusion that structural and superficial characters are about on a par as regards introducing any certainty into the definition of a species, and that a decided difference of colour and marking is often a better character than a slight modification of the form or sculpture of some important organ. Both are sometimes very constant, both are at times liable to much variation, and it is a matter of judgment and opinion how far we are to be guided by either in any particular case.

It will be as well, to avoid misapprehension, to say a few words about the localities given for the various species. All the specimens noted as from my collection were either obtained directly by myself in the localities named, or through collectors whom I knew well. All these localities therefore may be relied upon as perfectly authentic. The specimens collected by Mr. Lamb, and noted as from "Penang," were most of them collected, not in the island, but in the main land of the Malay Peninsula opposite, termed the "Province of Wellesley." "Penang" may therefore be held to signify merely a particular sub-district of the Malay Peninsula. The collections presented to the British Museum by Mr. Bowring comprise several thousand specimens labelled "Java." These were not collected by Mr. Bowring himself, but formed part of an extensive collection purchased by him, and said to have been collected in "Java and the adjacent islands,"—but chiefly in Java. It is to be remembered also, that for the last hundred years, collections have arrived in Europe from Java, which did not necessarily consist only of Javanese insects,—sometimes, on the contrary, they have been entirely formed in other islands. It follows that my own collections and those of Dr. Horsfield are the only perfectly authentic materials for the Entomology of Java, although I fully believe that by far the larger part of the species imputed to that island do really inhabit it, since it is unusually rich in every department of Zoology. The specimens from the

Philippine Islands are no doubt mostly well determined. A large number were collected by the late Hugh Cuming, and as there is scarcely any direct communication between this part of the Archipelago and any other, the collections are not likely to have been misappropriated. I have prefixed to each genus a few words on its distribution, and on any particulars of its habits known to me; and have added tables exhibiting at one view the distribution of the species, genera, and sub-families, through the various islands, groups of islands, and regions of the Archipelago.

Sub-fam. I. GOLIATHINÆ.

Gen. I. Mycteristes, Castelnau.

The two species of this genus are both rare. They are the only representatives of the fine Indian *Goliathinæ* yet found in the Archipelago.

1. Mycteristes rhinophyllus, Wiedemann.

Goliathus rhinophyllus, Wied. Zool. Mag. ii. p. 82.
Macronota rhinophyllus, Gory & Perch. Mon. Cet. p. 317, pl. 62, f. 5.
Mycteristes rhinophyllus, Westw. Arc. Ent. i. p. 2, pl. i. f. 3.
Hab.—Java (Coll. Parry, B. M., *Horsfield*).

2. Mycteristes Cumingii, Waterhouse.

Mycteristes Cumingii, Waterh. Proc. Ent. Soc. 1841, p. 26.
M. (*Phædimus*) *Cumingii*, Westw. Arc. Ent. p. 5, pl. i. f. 1, 2, ♂, ♀.
Hab.—Philippine Islands (Coll. Parry, B. M.).

Gen. II. Heterorhina, Westwood.

This genus contains several distinct types of form. *Diceros*, Gory & Perch., of which *Cetonia bicornis*, Latr., is the type, may be held to include also the hornless species, such as *H. confusa*, Westw., which have exactly the same style of colouration. *H. dives* resembles *Diceros*

in its double horn, while in colour it approaches *Coryphocera*, which contains the green species with a small flat horn or none. *Diceros* is a group very characteristic of the Archipelago, in which all the horned species are found. *Coryphocera* is more abundant in India and Africa. Neither of them extends into the Moluccas, New Guinea, or Australia.

* (*Diceros*, [*err. Dicheros*], Gory & Perch.).

1. Heterorhina bicornis, Latreille.

Cetonia bicornis, Latr. Regn. An. t. iii. pl. 17, f. 4.
Diceros plagiatus, Gory & Perch. Mon. Cet. p. 300, pl. 58, f. 3.

Hab.—Timor (Coll. Parry, B. M.).

2. Heterorhina florensis, n. s.

Nigra, nitida; thorace utrinque macula magna triangulari rubra; elytris singulis macula magna oblonga subquadrata flavo-testacea. Mas: cornubus duobus divergentibus recurvatis.

Black, shining; clypeus dilated, rounded in front and slightly notched; head of the male produced into two slightly divergent upcurved horns about as long as the thorax, head of the female nearly as in *H. bicornis* figured by Westwood (Arc. Ent. pl. 36, f. 8*c*), but the short horn is entire; head deeply punctured; thorax convex, finely punctured, the sides from the eye to near the outer angle blood-red, which colour extends in an irregular triangle to near the middle of the base; scutellum triangular, nearly equilateral, with scattered punctures; elytra punctate-striate and with scattered punctures, the disk covered by an elongate pale yellow patch, leaving a broad border at the base and apex, but a very narrow one at the sides; pygidium and the last abdominal segment blood-red; the sides of the thorax beneath the posterior coxæ, and a spot on the posterior femora, red; sternal process elongate, abruptly bent up between the anterior pair of legs.

Length, male 11 lines, female 10 lines.

Hab.—Flores (Coll. Wall.); ? Celebes (Coll. Parry).

3. Heterorhina malayana, n. s.

Nigra, nitida; clypeo truncato; thorace lateribus et fascia lata postica rubris; elytris singulis macula magna elongata flavo-testacea; femoribus rubris. Mas: cornubus duobus rectis, non divergentibus, sed apicibus dilatatis.

Black, shining; clypeus truncate in front; head of the male with two straight horns longer than the thorax, parallel, but flattened and curved on the outside at the apex; thorax distinctly punctured, with a narrow marginal band on the sides, connected by a broad transverse band close to the hind-margin, blood-red; elytra finely and regularly punctate-striate, the yellow patch still larger than in *H. florensis;* beneath, the sides of the thorax, all the thighs, the last abdominal segment, and the pygidium, blood-red. The sternal process as in *H. florensis,* but hardly so much incurved at the apex. Anterior tibiæ unarmed.

Length, male, 11 lines.

Hab.—Penang (Coll. Lamb).

The form of the horns of this species, no less than the colouration, distinguishes it from *D. ornata* as figured by Westwood, the thorax of which is also less punctured.

4. Heterorhina ornata, Hope.

Diceros ornatus, Hope, Proc. Ent. Soc. 1841, p. 33; Burm. Handb. iii. p. 219.

Heterorhina ornata, Westw. Arc. Ent. i. p. 140, pl. 36, f. 6, 7.

"Niger, capite medio excavato, postice tridentato, thorace nigro, fascia obliqua rubra fere interrupta, elytris nigris, macula lata flava, basi apice suturaque, nigricantibus, pedibus nigris, femoribus rubro-corallinis. Long. corp. lin. 8. Hab. Mysore." (Hope.)

Hab.—Philippine Islands (B. M. ♂, Coll. Parry, ♀). India? (Oxford Mus. ♀.)

The supposed Indian specimen (Hope's type) is identical with those from the Philippines; but as no specimens have arrived from India during the last twenty-five

years, and as the horned form of this group appears to be absent from the Indian Peninsula, I feel satisfied that the locality of that specimen is incorrect, and that it really came from the Philippines.

5. Heterorhina biguttata, Westwood.

Heterorhina biguttata, Westw. Arc. Ent. i. p. 141, pl. 36. f. 5. ♀.

Hab.—Philippine Islands, (B. M.), type ♀.

This species seems very different from the Philippine island males which appear to be identical with Hope's type (a female) of *H. ornata* from India. It is a striking example of how much collections are still required from the East, that during the twenty-five years that have elapsed since Mr. Cuming returned from the Philippine Islands, no males of this species have been received in this country. This may probably be an extreme form of *H. ornata* ♀, from which it hardly differs except in the form and size of the spots.

6. Heterorhina Petelii, Buquet.

Gnathocera Petelii, Buq. Ann. Soc. Ent. Fr. 1836, p. 206.
Heterorhina Petelii, Westw. Arc. Ent. i. p. 141, pl. 36. f. 4, ♀.
Dicoros decorus, Gory & Perch. Mon. Cet. p. 301, pl. 58, f. 4, ♀, (*nec* Illiger); Burm. Handb. iii. p. 219.

Hab.—Java.

Westwood's figure shows that this must be a very distinct species of the horned group, the male of which is not yet known. There appear to be no specimens in this country.

7. Heterorhina dives, Westwood.

Heterorhina dives, Westw. Arc. Ent. i. p. 134, pl. 33, f. 5 (details.)
Gnathocera Macleay, Gory & Perch. Mon. Cet. p. 129, pl. 19, f. 2, (*nec Macleaii*, Kirby.)

Hab.—Philippine Islands (Paris Mus.).

8. Heterorhina nigrotestacea, n. s.

Nigra, nitida; clypeo quadrato, integro; capite cornu parvo depresso; elytris macula magna quadrata testacea ad suturam interrupta; subtus immaculata, processu sternali longo, incurvato.

Black, shining; clypeus square; head rugose-striate, with a smooth ridge between the eyes, forming a depressed horn rather larger than in *H. Petelii;* thorax immaculate, punctured at the sides; elytra narrowed towards the apex, punctate-striate, on each side a large quadrate testaceous spot extending from the lateral margin to the sutural stria. Beneath immaculate; the sternal process long, incurved at the apex; anterior tibiæ with a flat tooth just below the apical spine.

Length 9 lines.

Hab.—Malay Peninsula (Coll. Parry), Siam (Coll. Wall.).

9. Heterorhina confusa, Westwood.

Heterorhina confusa, Westw. Arc. Ent. i. p. 139, pl. 36, f. 2.

Gnathocera bimaculata, Gory & Perch. Mon. Cet. p. 142, pl. 22, f. 3, (*nec Cet. bimacula,* Wied.)

Hab.—Java (Gory & Perch.), India (Westw.), Philippine Islands (B. M.).

A species of the form of *H. bicornis,* but with the long horns in the male.

* * (*Coryphocera,* Burm.).

10. Heterorhina Macleaii, Kirby.

Cetonia Macleaii, Kirby, Trans. Linn. Soc. xii. p. 408, pl. 21, f. 11 (*nec* Gory & Perch.).

Heterorhina Macleaii, Westw. Arc. Ent. i. p. 134, pl. 33, f. 4.

Hab.—Philippine Islands (B. M.).

11. Heterorhina decora, Illiger.

Cetonia decora, Ill. Vers. Oliv. ii. p. 148.
Heterorhina decora, Westw. Arc. Ent. i. p. 135, pl. 33, f. 6.
C. maculata, Gory & Perch. Mon. Cet. p. 310, (*C. 6-maculata*) pl. 19, f. 3.

Hab.—Java (B. M.), Penang (Coll. Laub.), Sumatra (Burm.).

12. Heterorhina borneensis, n. s. (Pl. XI. fig. 2).

Viridis; thorace punctato, macula magna centrali nigra; elytris rubro-nigris, fasciis (una mediana alteraque apicali) viridibus; capite cornu parvo dilatato, clypeo rotundato recurvato minime emarginato.

Silky green; clypeus rounded, recurved, slightly emarginate; head with a flat depressed horn dilated semicircularly at the end; thorax semicircular, thickly punctate, with a large central brown-black spot; scutellum triangular, smooth; elytra pitchy brown, punctate-striate, with a green band across the middle wider at the outer margins, and a curved green spot at the apex on each side; antennæ and tarsi pitchy, tibiæ with green markings, inner side of all the thighs and posterior coxæ pitchy brown; anterior tibiæ dilated, and with a strong lateral tooth; sternal process flat, elongate, curved upwards.

Length 9 lines.

Hab.—Borneo (Coll. Wall. ♀).

This agrees very nearly in many characters with *H. dives*, of which only the male is known from the Philippine Islands, but so much confusion has been caused by describing opposite sexes found in distant localities as the same species, that I think it much better to describe this insect as distinct.

13. Heterorhina mitrata, n. s. (Pl. XI. fig. 1).

H. borneensi similis, sed capite cornu acuto et clypeo elongato bidentato.

Green; the spot on the thorax as in *H. borneensis*, the elytra with the median band broader and sloping backwards from the suture so as to join the apical spots; clypeus elongate, recurved, and deeply cleft; a very short flat triangular horn between the eyes; pygidium green on the outer edge only; antennæ and legs as in *H. borneensis*.

Length 10 lines.

Hab.—Penang (Coll. Lamb, ♀.)

This species and *H. borneensis* are strikingly alike in form and colouration, but differ completely in the armature of the head. The males of both may perhaps be as fine insects as *H. dives*.

14. Heterorhina modesta, n. s. (Pl. XI. fig. 3).

Nigra, elytris singulis macula magna obliqua viridisericea; clypeo quadrato, margine antico integro; vertice obscure carinato.

Elongate, attenuate behind, black; clypeus quadrate, the margins reflexed, entire; head unarmed, with traces of a ridge between the eyes; thorax convex, smooth, its base as broad as the elytra, the hind-angles acute; elytra very smooth, a large irregular silky-green patch extending from the basal half of the suture to near the apical half of the outer margin, the apex somewhat produced and spined; anterior tibiæ of the male unarmed, of the female with a strong tooth near the extremity; posterior tibiæ rather long; sternal process elongate, flattish, much curved.

Length 9 lines.

Hab.—Tondano, North Celebes (Coll. Wall, ♂. ♀).

This elegant species presents no sexual differences but those of the furrowed abdomen and unarmed anterior tibiæ of the male. Major Parry possesses a male from the same locality, which is much broader in proportion than my specimens, but otherwise exactly resembles them.

15. Heterorhina læta, Fabricius.

Cetonia læta, Fabr. Syst. El. ii. p. 150.
Gnathocera læta, Gory & Perch. Mon. Cet. p. 135, pl. 20, f. 6.

Coryphocera læta, Burm. Handb. iii. p. 223.
Heterorhina læta, Westw. Arc. Ent. i. p. 137, pl. 34, f. 2. (details).
Hab.—Java (B. M.), Siam (Coll. Wall.), Sylhet (Coll. Parry).

Sub.-fam. II. GYMNETINÆ.

Gen. III. Clinteria, Burmeister.

A group of small-sized dull-coloured *Cetoniæ*, not common in the Archipelago. *C. sexpustulata* was, however, very abundant in the island of Timor. They have evidently spread from the continent into the large islands at the time of their union, since they are not found in Celebes, or any of the islands further east, except the closely connected chain which extends from Java to Timor.

1. Clinteria atra, Wiedemann.

Macronota atra, Wied. Zool. Mag. ii. p. 84.
Gymnetis funeraria, Gory & Perch. Mon. Cet. p. 375, pl. 76, f. 5
G. biguttata, Gory & Perch. *ib.* p. 374, pl. 76, f. 4.
Hab.—Java (B. M.).

2. Clinteria flavomarginata, Wiedemann.

Macronota flavomarginata, Wied. Zool. Mag. ii. p. 84.
Hab.—Java (B. M.).

Very near *C. atra*, but smaller, and distinguished by its broad yellow margins to the elytra.

3. Clinteria sexpustulata, Gory & Percheron.

Gymnetis sexpustulata, Gory & Perch. Mon. Cet. p. 376, pl. 77, f. 1.
Hab.—Timor (Coll. Wall.).

An abundant species in Timor, and very variable in its markings. Found in foliage and in flowers.

4. Clinteria egens, Vollenhoven.

Clinteria egens, Voll. Tijd. voor Ent. vii. p. 152.

"Nigra, subopaca, elytrorum macula pallide ochracea. Long. 15. mm."

Hab.—Borneo (Leyden Mus.), Penang (Coll. Lamb).

I have some hesitation in referring Mr. Lamb's specimen to this species, as Vollenhoven's description is by no means precise; the elytra are rather finely and regularly punctate-striate; whereas Vollenhoven says:—"Elytres à lignes de gros points enfoncés mais peu profonds." It is allied to *C. flavonotata*, Gory & Perch.

5. Clinteria Bowringii, n. s.

Nigra, opaca, elytris singulis macula magna laterali roseo-cinnabarina.

Black; clypeus quadrate, elongate, emarginate; thorax with coarse scattered punctures on the disk, thickly rugose—punctured on the sides; scutellum small, triangular, very narrow; elytra punctate-striate, the spaces elevated, a large irregular roundish spot on each side extending from about the middle of the lateral margin two-thirds across the elytra of a bright rosy cinnabar red; beneath shiny black, sternum with scattered coarse punctures, its process straight, conical, acute; anterior tibiæ with two acute lateral spines.

Length 7 lines.

Hab.—Java (B. M.).

6. Clinteria malayensis, n. s.

Nigra, subtus nitida, supra opaca subænea; thorace punctis quatuor, elytris singulis maculis duabus flavis, una magna, altera apicali minore.

Black, very brilliant beneath, opaque and slightly brassy above; clypeus as in *C. Bowringii*; thorax faintly punctured on the sides, two distinct yellow spots on the disk, and two or four minute ones near the margin; scutellum very small as in *C. Bowringii*; elytra punctate-striate, a large rotundate marginal spot notched on the inner side below, and a smaller apical spot, pale

ochre yellow, pygidium opaque, faintly wrinkled; a small spot on the side of the sternum, and others on the margin of the two first abdominal segments, whitish-yellow; sternal process conical, blunt; thighs, coxæ and sternum coarsely rugose-punctate; spines of anterior tibiæ very stout.

Length 6½ lines.

Hab.—Penang (B. M.).

Very near *C. flavonotata*, but I think distinct; that species is rather broader, entirely wants the apical spot, the surface of the sternum is more irregularly punctate, the elytra are deep opaque black, and more coarsely punctate, and the trochanters of the hind legs are strongly spined.*

7. Clinteria cinctipennis, Gory & Percheron.

Gymnetis cinctipennis, Gory & Perch. Mon. Cet. p. 376, pl. 77, f. 2.

Hab.—Java.

I have not seen a specimen of this species. It may be a variety of *C. scapustulata* or *C. atra*.

8. Clinteria dives, Vollenhoven.

Clinteria dives, Voll. Tijd.voor Ent. vii. p. 153.

"Nigra, supra opaca, elytris striatis, subtus subnitida, elytrorum macula magna transversali aurantiaca. Long. 16 mm."

Hab.—Borneo and Biliton (Leyden Mus.).

9. Clinteria vidua, Vollenhoven.

Clinteria vidua, Voll. Tijd. voor Ent. vii. p. 153, pl. 9, f. 6.

"Nigra, supra opaca, subtus nitida; elytrorum maculis duabus magnis subovalibus, lunulisque duabus lacteis. Long. 17 mm."

Hab.—Sumatra (Leyden Mus.).

* *Gymnetis flavonotata*, Gory & Perch. Mon. Cet. p. 377, pl. 77, f. 3, from Tenasserim, falls just beyond the geographical limits assigned to this paper. The type is in the Oxford Museum, and by the kindness of Prof. Westwood, I have been enabled to compare it with the present species.

10. Clinteria flora, n. s. (Pl. XI. fig. 4).

Supra nigro-brunnea; thorace punctis duobus et macula marginali fulvo-luteis; elytris singulis fascia lata longitudinali brunneo-rufa, punctis duobus discalibus, maculisque marginalibus et apicalibus fulvo-luteis.

Black; clypeus quadrate, emarginate, lobes rounded, coarsely punctate; thorax deep olive-brown, finely punctate, the sides rounded, an irregular marginal patch not reaching the outer angle, and two small oval spots on the disk, orange-ochre; scutellum very small, triangular; elytra punctate-striate, the punctures large and shallow, appearing as semicircular impressions in some lights, deep olive-brown, a broad longitudinal band on the middle of each elytron from the base to near the apex brownish-red, an elongate apical spot, a smaller one on the outer margin nearer the apex than the base, and a small discal double spot, orange-ochre; pygidium black, hairy, and with a small yellowish spot on each side; beneath are patches of orange on the margins of the sternum, the coxæ of the hind legs, and on the last abdominal segment; the sternal process curves outwards and is rounded at the end; head and legs with rufous hairs; anterior tibiæ with two strong lateral teeth.

Length 7 lines.

Hab.—Flores (Coll. Wall.).

A pretty species, perhaps nearest to *C. mœrens*, from Ceylon.

Gen. IV. Agestrata, Eschscholtz.

Although these fine insects are so common in collections, I never myself met with them. They are strictly confined to the Indian region of the Archipelago.

1. Agestrata orichalca, Linnæus.

Scarabæus orichalcus, Linn. Amœn. Acad. vii. p. 504.
Scarabæus chinensis, Auct.
Cetonia chinensis, Herbst, iii. p. 199, pl. xxviii. f. 2.
Agestrata chinensis, Gory & Perch. Mon. Cet. p. 305, pl. 59, f. 2.

A. Dehaan, Gory & Perch. *lib. cit.* p. 304, pl. 59, f. 1.
Cetonia nigrita, Fabr. Syst. El. ii. p. 136, var.
Agestrata Withillii, Hope, Proc. Ent. Soc. 1841, p. 33.
A. gagates, Hope, *l. c.*
Hab.—China, India, Penang, Borneo, Java.

2. Agestrata luzonica, Eschscholtz.

Agestrata luzonica, Eschsch. Zool. Atlas, p. 13, pl. 4, f. 8.
A. splendens, Gory & Perch. Mon. Cet. p. 306, pl. 59, f. 3.
Hab.—Philippine Islands (Coll. Parry, B. M.).

3. Agestrata Parrii, n. s.

Sub-convexa, læte viridis, subtus viridi-cuprescens; tibiis cupreis, apicibus nigris; tarsis rufo-cupreis, nigro-terminatis; antennis nigro-rufis.

Green, not so metallic as *A. orichalca*, rather more convex; the head and clypeus less coarsely punctured; thorax less rugose, and with fine scattered punctures; elytra somewhat smoother; beneath, the sternal process is narrow, bent in, not dilated; the tibiæ are coppery, with the apical spines black, the tarsi dark coppery, with the apex of each joint black; the antennæ dark purple-copper or rufous; anterior tibiæ with the second tooth below the apex, small.

Length 27 lines; width 12 lines.

Hab.—Borneo (Coll. Parry, B. M.).

This fine species appears to differ sufficiently from the other two, to be considered distinct.

Gen. V. Lomaptera, Gory & Percheron.

This fine genus is especially characteristic of the Moluccas and New Guinea, where the species are often very abundant. They frequent the flowers of palms, or the sap which flows from their cut flower-stalks, and are sometimes found on foliage. They were also sometimes very abundant in new clearings, flying about near the ground, and settling on rotten wood. In the Kaioa Islands, *Lomaptera pygidialis* was seen flying about by

hundreds. In the great islands of the Indo-Malayan region, on the contrary, I never saw a specimen of the genus, and this fact will illustrate its peculiar distribution, as well as the localities of the several species.

1. Lomaptera striata, n. s. (Pl. XI. fig. 8).

Viridis, lata, sub-convexa; pygidio conoideo, transverso, compresso, vix carinato; thorace punctato; elytris punctato-striatis; tarsis viridi-cupreis.

Broad, slightly convex; head deeply punctate, thorax finely punctate throughout, more deeply at the sides, lobe rather short, entire; scutellum visible, elongate, triangular; elytra distinctly punctate-striate, with a few scattered punctures, gradually rounded at the sides, where the punctures merge into coarse transverse striæ, apex rather deeply notched; pygidium broad and short, terminating in an obtuse transverse keel, not projecting beyond the apex of the elytra. Anterior tibiæ with two strong lateral teeth in the female, in the male much smaller, the second almost obsolete; posterior tibiæ stout, with a notch on the outside about one-third from their apex; sternum with the sides punctured, the sternal process much curved, stout at the base, and ending in a rather acute point, in some specimens with a boss or tubercle between the middle pair of legs. Colour entirely green or bronzy-green, the tarsi more bronzy, the club of the antennæ bronzy-black, and the sternal spine bronzy.

Length 15-17 lines.

Hab.—Borneo (Coll. Wall. ♀.), Penang (Coll. Lamb, ♀.) (B. M. ♂.)

A fine species, but differing much from the usual type of *Lomaptera* by the sub-convex striated elytra which entirely cover the abdomen. It must be considered the most aberrant form of the genus.

2. Lomaptera timoriensis, n. s.

Nigra, polita; thoracis disco tenuiter punctato; elytris lateribus distincte, disco obsolete punctato-striatis; pygidio conoideo, obtuso.

Head punctate; thorax smooth, polished, very finely

punctate on the disk, coarsely on the sides; scutellum distinct, triangular; elytra punctate-striate at the base and sides, obscurely striate with a few obsolete raised points on the disk, transversely striate at and near the apex; pygidium very obtuse, transversely conoidal; anterior tibiæ with two lateral teeth, sternal spine moderate, slightly curved. Colour entirely black, the elytra sometimes pitchy and more distinctly punctate-striate.

Length 10-12 lines.

Hab.—Timor (Coll. Wall. ♂, ♀).

Very near *L. pulla*, (*ebena*, Burm.), but broader, less smooth, less parallel, and has a larger scutellum.

3. Lomaptera pulla, Schönherr.

Cetonia pulla, Schönh. Syn. Ins. I. iii. App. p. 46 (1817).
C. nigrita, Frölich, Naturf. xxvi. p. 110 (1792), *ib.* xxix. pl. iii. fig. 5 (*nec* Fabr., 1775).
Lomaptera cupripes, Waterhouse, Proc. Ent. Soc. 1841, p. 27.
L. nigrocænea, Waterhouse, *l. c.*
L. viridicænea, Gory & Perch. Mon. Cet. p. 309, pl. 60, f. 5.
L. ebena, Burm. Handb. iii. p. 315.

These forms, which vary much in size and colour, all have the scutellum visible, the hind tibiæ with a distinct notch forming a small tooth about one-third from the apex, and the sternal spine curved from the base. The surface is very glossy and smooth, either bronzy black, purple black, or brassy green; the thorax is punctured or striated only at the sides, and the elytra are faintly punctate and somewhat striate towards the sides, and more deeply striate at the apex. *L. cupripes* is a fine variety of a rich brassy green, with the legs and the shoulders and apex of the elytra bronzy purple. The Penang specimens are smaller and glossy purple, but offer no distinctive characters. The Hongkong specimens are very fine and glossy, with the punctuation of the elytra almost entirely wanting. Some of the small Indian specimens, on the contrary, have the elytra very much punctured, and there seems to be every form between these extremes. The anterior tibiæ are spined as in *L. agni*.

Hab.—Philippine Islands (Cuming), Tenasserim (Oxford Mus.), Penang (Coll. Lamb), China (Bowring), India (B. M.).

Schaum, Lacordaire, and Thomson adopt *nigrita*, Frölich, as the name for this species. Frölich however quotes the name from Fabricius (Syst. Ent. p. 43), on referring to which it is evident that he gave that name to the black variety of *Agestrata orichalca*. Frölich's description is very detailed, and no doubt refers to this species, but the name must drop, and Schönherr's name *pulla* be adopted. The description of *pulla* is good, and refers undoubtedly to this species. I have compared the type specimen of *L. viridicenea* in the Oxford Museum, and find that it must be referred here.

4. Lomaptera agni, n. s.

L. pullæ simillima. Viridi-ænea vel purpurea, subtus magis purpurea, nitidissima; thorace valde lobato, scutellum tegente; elytris lateribus rugosis; corpore subtus lævi, processu sternali longo, recto, apice incurvato.

Very like *L. pulla;* brassy or purple green, very brilliant; thorax flat above, the sides rugose striate, the lobe much produced, entirely concealing the scutellum; elytra flat, the sides somewhat wrinkled and finely rugose-striate, entirely without punctures, the apex somewhat emarginate, the suture produced into a short spine; beneath with a few scattered striations on the sides of the body and abdomen, the sternal process very flat, straight, incurved only at the end, but rather shorter and more curved in the male; the hind tibiæ without a marginal tooth, the anterior tibiæ with two lateral teeth, rather stronger in the female.

Length 15 lines.

Hab.—Penang (Coll. Lamb and Wall.).

A beautiful species, very close to some of the varieties of *L. pulla*, but always distinguishable by such structural characters as the concealed scutellum, the smooth hind tibiæ, and the straight sternal spine.

5. Lomaptera virens, Hombron and Jacquinot.

Lomaptera virens, Homb. et Jacq. Voy. au Pol. Sud. Col. pl. 9. f. 6.

? L. valida, Gory and Perch. Mon. Cet. p. 308, pl. 60. f. 2.

Cetonia plana, Schönh. Syn. Ins. I. iii. App. p. 57.

Hab.—Amboyna, Ceram (Coll. Wall., B.M.).

Very abundant, flying about the ground in newly cleared forest. Gory and Percheron's figure is quite unrecognizable and can hardly represent this species.

6. Lomaptera D'Urvillii, Burmeister.

Lomaptera D'Urvillii, Burm. Handb. iii. p. 315; Homb. et Jacq. Voy. Pol. Sud. pl. 9, f. 7.

Hab.—New Guinea (Coll. Parry, B. M.), ? Amboyna (H. & J.).

Thorax smooth, elytra punctate-striate near the base, transversely wrinkled towards the apex.

Messrs. Hombron and Jacquinot say this was the most common species of *Lomaptera* at Amboyna. I cannot help thinking that this remark should apply to *L. virens*, which I found very abundant at Amboyna, but I saw nothing of *L. D'Urvillii*. In the British Museum Catalogue New Guinea is given as the locality which seems more probable.

7. Lomaptera Latreillii, Gory & Percheron.

Lomaptera Latreille, Gory & Perch. Mon. Cet. p. 307, pl. 60, f. 1; Thoms. Mus. Scient. p. 34.

Rather larger than *L. olivacea*, head and thorax more punctate, elytra covered with fine short transverse striæ except at the base. Coxæ and femora of fore legs clothed with rufous hairs. Anterior tibiæ spined in both sexes as in *L. olivacea*.

Hab.—Kaioa Islands, Ternate (Coll. Wall., B. M.).

Abundant at palm sap in these islands, and probably also in Makian and Tidore, which lie between them. Mr. Thomson says he has determined this to be the true *L. Latreillii*, by an examination of the type specimen;

Messrs. Gory and Percheron's description and figure will apply equally well, or even better, to *L. olivacea*.

8. Lomaptera rugata, Hombron & Jacquinot.

Lomaptera rugata, H. & J. Voy. au Pol. Sud. Col. pl. 9, f. 8.

"Læte viridis, nitida; clypeo profunde emarginato; elytris fere parallelis, punctis impressis strigis transversalibus minutis numerosissimis." (Homb. et Jacq.).

Hab.—Solomon Islands (H. & J.), New Hebrides (Coll. Parry).

Major Parry's specimen of this species is very close to *L. Latreillii*, but smaller and of a more vivid green colour. The thorax and base of the elytra are much more strongly and closely punctured. The clothing of rufous hair beneath is more dense, the sternum is more distinctly punctured, and the under surface of the pygidium in the female is broader. It agrees very well with the figure and description above quoted.

9. Lomaptera esmeralda, n. s.

Intense viridis; thorace lævi, lateribus punctatis; scutello distincto; elytris basi lævibus, deinde punctatis et rugoso-striatis; processu sternali elongato, incurvato.

Intense glossy green; clypeus deeply notched, punctate; thorax very smooth and glossy, punctate only at the margins; scutellum more visible than in *L. Latreillii*; elytra with the shoulders elevated, very smooth at the base, thence punctured and thickly covered with transverse wrinkles, pygidium of the female transverse, keeled not quite so sharply as in *L. Latreillii*; club of antennæ pitchy; claws and tibial spines black; sternal process longer than in *L. Latreillii*, acute, incurved at the tip; thighs of the fore legs with rufous hairs; anterior tibiæ with two strong lateral teeth.

Length 1 inch.

Hab.—"N. Hebrides, Solomon or Fidji Is.", *Mac Gillivray*. (B. M. ♀).

A very beautiful species, allied to *L. Latreillii*.

10. Lomaptera olivacea, Thomson.

Lomaptera olivacea, Thoms. Mus. Scient. p. 34.

Male with one, female with two sub-apical teeth on the fore tibiæ. Female rather more distinctly punctured. Anterior coxæ and femora clothed with black hairs.

Hab.—Batchian, Gilolo, Morty Island (Coll. Wall., B. M.).

The Morty Island specimens are as much punctured in the male sex as the females of the other islands, and form a partial transition to *L. Latreillii.* This species was abundant at the flowers and sap of palm trees.

11. Lomaptera Wallacei, Thomson.

Lomaptera Wallacei, Thoms. Arch. Ent. i. p. 426, pl. 16, f. 1.

Male with one small tooth, female with two teeth below the apex of the anterior tibiæ.

Hab.—Aru Islands (Coll. Wall., B. M.).

Rather plentiful, flying in hot places in the forest, and settling on rotten stumps.

12. Lomaptera wallisiana, Thomson.

Lomaptera wallisiana, Thoms. Mus. Scient. p. 34.

Hab.—Wallis Island (Thoms.), Cape York (Coll. Parry).

Very near *L. Wallacei;* differs by its smaller size and rather rounder thorax.

13. Lomaptera fasciata, Burmeister.

Lomaptera fasciata, Burm. Handb. iii. p. 313.
Cetonia bifasciata, Quoy & Gaim. Voy. de l'Uranie, 548, pl. 82, f. 5.
L. bivittata, Gory & Perch. Mon. Cet. p. 308, pl. 60, f. 3.

Male. Abdomen slightly furrowed, anterior tibiæ with two obsolete teeth below the apical spine.

Female. Anterior tibiæ with two acute teeth.

Hab.—New Guinea, Mysol, Waigiou (Coll. Wall.).

One specimen of this rare and beautiful insect was

captured in each of the above localities. It varies in the width of the bands and in the shade of green of the surface. It was observed flying swiftly near the ground, settling occasionally among rotten wood and dead leaves.

14. Lomaptera arouensis, Thomson.

Lomaptera arouensis, Thoms. Arch. Ent. i. p. 428, pl. 16, f. 4.

Hab.—Ké Islands (not Aru Is.), (Coll. Wall., B. M.).

Found abundantly at the flowers of cocoa-nut palms on the beach at the Ké Islands; I possess a male specimen of a purple-bronze colour instead of the usual glossy olive-green.

15. Lomaptera ceramensis, n. s.

Viridi-ænea, tenue punctata, pedibus pilis rufis vestitis.

Very near *L. arouensis*, Thoms., the same form and size, but rather greener in colour. It differs however by the thorax being more closely and uniformly punctured, by the basal two-thirds of the elytra being thickly covered with fine transverse striæ, which form themselves into lines of punctures towards the base, and by the hair on the coxæ, femora, and tibiæ being rufous, whereas it is black in the allied species.

Hab.—Ceram (Coll. Wall., B. M.).

A very closely allied species from Cambodia is described below.*

* Lomaptera cambodiensis, n. s.

L. ceramensi simillima, sed clypeo minus punctato, scutello minimo, elytris in medio tranverse subangulatis, et processu sternali magis recto.

Very close to *L. ceramensis*, rather narrower, colour more bronzy, elytra somewhat angulated, with a distinct elevation across the disk and another above the apical prominence; clypeus less closely punctured; scutellum very small, oblong; beneath, the sternal process is straight, not abruptly incurved at the tip as it is in *L. ceramensis*; hairs rufous as in that species.

Length 13 lines.

Hab.—Cambodia (Coll. Parry, ♂).

This species so closely resembles *L. ceramensis* that I was at first disposed to think there must be an error in its locality. A closer examination however has shown that there exist several slight but important structural characters which distinguish it from that species, and Major Parry assures me he obtained it from the late M. Mouhot's collections from Cambodia. It is however a curious example of such closely allied forms being so widely separated geographically.

16. Lomaptera concinna, n. s. (Pl. XII. fig. 1).

Minor, nitide viridis; elytris punctato-substriatis; pedibus, antennis, clypei apice, et abdominis segmentis duobus ultimis, purpureo-cupreis.

Male. Form of *L. ceramensis*; head rather closely punctured; thorax very smooth, punctate only near the margins, the middle lobe distinctly bifid; scutellum visible; elytra rather abruptly deflexed at the sides, the base smooth, the disk with lunate punctures disposed in somewhat irregular striæ, the apical half of the margin with deep transverse striæ, the suture near the apex abruptly raised. Anterior tibiæ with a strong tooth below the apical spine, sternal process slightly curved upwards, pygidium tranversely keeled, its lower surface less than half the upper, abdomen deeply furrowed.

Above, pure glossy green, the apex of the clypeus coppery red; antennæ entirely rufous copper; legs entirely purplish copper; pygidium and the adjoining segment of the abdomen rich purple copper.

Length 11 lines.

Hab.—Aru Islands (Coll. Wall., ♂).

A single specimen only of this species was obtained.

17. Lomaptera validipes, Thomson.

Lomaptera validipes, Thoms. Arch. Ent. i. p. 427, pl. 16, f. 2.

Male, with the outer edge of the fore tibiæ smooth; in the female one-toothed. The male has (sometimes ?) the front of the clypeus and the extremity of the abdomen rufous.

Hab.—Aru Islands, New Guinea (Coll. Wall., B. M.).

A fine species, and uncommon.

18. Lomaptera xanthopus, Boisduval.

Lomaptera xanthopus, Boisd. Faune de l'Oceanie, ii. p. 225, Col. pl. 7, f. 3, ♂.

Anterior tibiæ of male smooth, of female with one small tooth.

Hab.—New Guinea, Mysol (Coll. Wall., B. M.).

Very few specimens were obtained of this rare species.

19. Lomaptera pygidialis, Thomson.

Lomaptera pygidialis, Thoms. Mus. Scient. p. 35.

Hab.—Kaioa Island (Coll. Wall., B. M.).

The anterior tibiæ have a single strong tooth in the female, and a very obsolete one in the male.

Abundant at certain seasons, and would probably be also found in Makian, and perhaps in Tidore and Ternate.

20. Lomaptera batchiana, Thomson.

Lomaptera batchiana, Thoms. Mus. Scient. p. 35.

Hab.—Batchian, Gilolo, Morty Is. (Coll. Wall., B. M.).

This species differs from *L. pygidialis* by its less punctured and striated upper surface, and by the pygidium of the female being much more produced and compressed. The specimens from Morty Island show a further slight difference in the form of the pygidium, but are not sufficiently marked or definite to be described as specifically distinct. Both species were abundant at the flowers and sap of palms.

21. Lomaptera australis, n. s.

Læte virens, nitida, elytris tenuissime transverso-striatis: mas, pygidio conoideo, tibiis anterioribus inermibus.

Male. Form of *L. batchiana;* bright glossy green or golden-green; thorax very finely punctured in the middle, more coarsely at the sides, anterior angles acute; elytra finely transversely-striate, the base smooth. The pygidium regularly conoidal, finely rugose-striate; abdomen deeply furrowed beneath, outer edge of anterior tibiæ quite smooth; sternal process straight, slightly divergent, scarcely incurved at the tip.

Length 13-15 lines.

Hab. — Cape York (Coll. Parry), Lizard Island (B.M.).

The Lizard Island specimens are larger and more golden, but otherwise do not differ.

22. Lomaptera punctata, Montrouzier.

Lomaptera punctata, Montr. Ann. Sc. Phys. &c. de Lyon, ser. 2, vol. vii. p. 26.

Hab.—Woodlark Island (B. M., ♂).

Allied to *L. batchiana*, but jet black and glossy, the thorax finely and regularly punctate, and the elytra covered throughout with fine rugose transverse striæ.

23. Lomaptera adelpha, Thomson.

Lomaptera adelpha, Thoms. Arch. Ent. i. p. 428, pl. 16, f. 3.

"Pygidium apud ♂ in medio longitudinaliter elevatum."

"Diffère de la *L. validipes* par les characteres que voici: Moins allongée. Elytres non echancrées à l'extremité, ayant deux bosselures postérieurement; point de granulations sur les bords lateraux; sillonnées transversalement en arrière; lisses anterieurement; la ponctuation se changeant ensuite en sillons transversaux confluents." (Thomson.)

Hab.—Aru Islands (Coll. Thoms. ♂ ?).

This specimen was obtained by me in the Aru Islands, but was overlooked, and thus passed into the collection of Mr. Thomson.

24. Lomaptera papua, Guérin.

Lomaptera papua, Guér. Voy. Coquille, Zool. pl. 3, f. 11; Gory & Perch. Mon. Cet. p. 309, pl. 60, f. 4, ♂.

"Obscure viridis, nitidissima; fronte bicornuta; thorace postice producto, scutellum tegente. Elytris elongatis, postice sub-attenuatis, subtilissime transversim rugosis, punctatis. Corpore subtus viridi, sternum antice productum, pedibus concoloribus. Long. 34 mill." (Guérin.).

Male with the anterior tibiæ unarmed and the pygidium conical. Female with one tooth near the end of the tibiæ, the pygidium transversely rhomboidal, with a vertical keel.

Hab.—Waigiou (Coll. Wall. ♀), New Guinea (Paris Mus. ♂).

I obtained a single specimen only of this species.

25. Lomaptera inermis, n. s. (Pl. XII. fig. 2).

Viridis; capite, pedibus, pygidio et elytrorum apice viridi-rufis; tibiis rufis, anterioribus inermibus.

Female. Form of *L. papua*, metallic green; antennæ, fore part of the head, legs, and the extremity of the body and elytra, rufous, shading in to the green of the body. Thorax very finely punctate and transversely striate at the sides, scutellum concealed, hinder part of the elytra covered with very fine transverse striæ; pygidium of the same form as in *L. papua*, but the keeled portion rather more protuberant below; anterior tibiæ without any tooth on the margin.

Length 14 lines.

Hab.—New Guinea (Coll. Wall. ♀).

I obtained only a single specimen of this species.

Sub-fam. III. MACRONOTINÆ.

Gen. VI. Clerota, Burmeister.

The only species of this genus is rare, and was not met with by myself.

1. Clerota budda, Gory & Percheron.

Macronota budda, Gory & Perch. Mon. Cet. p. 310, pl. 61, f. 1.

M. vittigera, Westw. Arc. Ent. i. pl. 28, f. 6.

Hab.—Penang (Coll. Lamb, ♀), Java (Coll. Parry, B. M.).

The Penang specimens agree with those from India as figured by Westwood.

Gen. VII. Plectrone, n. g.

Clypeus broad, but slightly bilobed; club of antennæ moderate, scarcely elongate in the male; prothorax narrow in front, the sides angulated, nearly parallel or concave behind, base much narrower than the elytra, the middle produced into a rounded lobe, the surface rounded and but slightly furrowed longitudinally; scutellum large, triangular; elytra much undulated, depressed along the suture, and with a large impressed space about

the middle; legs very long, the anterior tibiæ nearly as in *Chalcothea*, the posterior tibiæ of the male dilated, and with a large curved spur on the inner edge, near the apex; sternum flat, its median process short, truncate, and slightly rounded.

This genus differs from *Chalcothea* in the form of the thorax and elytra, and in the remarkably spurred hind tibiæ of the males.

1. Plectrone nigrocærulea, Waterhouse.

Macronota nigrocærulea, Waterh. Proc. Ent. Soc. 1841, p. 27, ♀.

Chalcothea Barrotiana, Burm. Handb. iii. p. 319, ♂.

Hab.—Philippine Islands (Coll. Parry, B. M.).

A male from the Philippines, in the collection of Major Parry, agrees with Burmeister's description, but the impression of the elytra is not striated, and the whole surface is exceedingly smooth and glossy. Mr. Waterhouse's type specimen in the British Museum is blue-black, but otherwise agrees in form and all other details. This species has the thorax almost as distinctly sulcate as in *Chalcothea*.

Length 13½ lines.

2. Plectrone tristis, Westwood. (Pl. XIII. fig. 1).

Macronota tristis, Westw. Arc. Ent. i. p. 104, pl. 28. f. 5.

Hab.—Java (B.M. ♀); Penang (Coll. Lamb, ♂, ♀).

This species varies from brassy-green to blue-black. The male has the hind tibiæ much dilated, and armed with a short spur almost the shape of a ploughshare; and in this sex the clypeus is dilated in front and almost entire. In other respects Mr. Westwood's description is very accurate. The nearly flat thorax, the striated impression on the elytra, the entire surface slightly roughened with minute punctures, and the different form of the spur, distinctly separate this species from its Philippine ally.

Length 16 lines.

Gen. VIII. Chalcothea, Burmeister.

The species of this beautiful group were generally found flying near the ground, in the sunshine, and set-

tling on rotten wood. They were sometimes tolerably abundant, but difficult to capture. They are confined to the Indo-Malayan region.

1. Chalcothea smaragdina, Gory & Percheron.

Macronota smaragdina, Gory & Perch. Mon. Cet. p. 311, pl. 61, f. 2.

Hab.—Penang, Malacca (Coll. Wall., B. M.), Java? (Coll. Parry, B. M.).

Gory and Percheron give Borneo as the locality of this species. All my specimens from Borneo have the short sternal process and lighter colouring of *C. resplendens*. Major Parry and the British Museum Collection have specimens labelled Java, but I consider this locality somewhat uncertain; these specimens differ from those of Penang, in their more golden green colour, and the rather broader sternal process slightly enlarged at the point.

2. Chalcothea affinis, Vollenhoven.

Chalcothea affinis, Voll. Mem. Ent. i. p. 23, pl. ii. f. 2.

Hab.—Borneo (Coll. Wall.).

This species may be at once distinguished from *C. resplendens* by its short rounded sternal process. It is in other respects almost exactly like that species.

3. Chalcothea resplendens, Gory & Percheron.

Macronota resplendens, Gory & Perch. Mon. Cet. p. 311, pl. 61, f. 3.

Hab.—Java (Coll. Parry).

A smaller and darker coloured species than its two allies.

Gen. IX. Macronota, Hoffmansegg.

This genus is very characteristic of the Indo-Malayan region. The larger species have the habits of *Chalcothea*, while the smaller ones frequent palm blossoms, or are found occasionally on foliage.

1. Macronota Diardi, Gory & Percheron.

Macronota Diardi, Gory & Perch. Mon. Cet. p. 313, pl. 61, f. 5.

Hab.—Borneo, Sumatra, Malacca, Penang (Coll. Wall., B. M.)

This handsome species is rather common in newly cleared forest, flying in the hottest sunshine, close to the ground, and settling on dry and decaying wood.

2. Macronota trisulcata, Gory & Percheron.

Macronota trisulcata, Gory & Perch. Mon. Cet. p. 312, pl. 61, f. 4.

Hab.—Java (Coll. Parry, B. M.).

This fine species appears to be absolutely restricted to the Island of Java.

3. Macronota aciculata, Vollenhoven.

Macronota aciculata, Voll. Tijd. v. Ent. vii. p. 153.

"Viridi-cuprea, elytris olivaceo-viridibus, humeris vinosis, prothorace antice tuberculato, elytrorum parte externa aciculata." (Voll.)

Hab.—Java.

4. Macronota Ludekingii, Vollenhoven.

Macronota Ludekingii, Voll. Tijd. v. Ent. vii. p. 154, pl. 10, fig. 1.

"Olivaceo-viridis, nitida, elytrorum margine laterali usque ad medium rubro, exinde ad suturam viridi, serrato." (Voll.)

Hab.—Sumatra.

5. Macronota celebensis, n. s. (Pl. XI. fig. 5).

Rufo-castanea, glaberrima, corpore et abdomine, thorace et elytris in medio, antennis et tarsis nigris, scutello, elytrorum singulorum macula in medio alteraque ad apicem, fasciisque subtus lateralibus luteis.

Clypeus ovate, notched in front, elevated between the eyes, with a few scattered punctures; thorax dilated in the middle, the hinder angles acute, moderately lobed behind, convex, with deep scattered punctures about the anterior angles, and a small group in the middle behind;

scutellum rather large, triangular, striated at the base; elytra with a depression round the scutellum which extends on to the base of the thorax, shoulders elevated, a depression in the middle near the suture where there are five striæ, the three inner ones reaching nearly to the apex; at the sides are a few deep scattered punctures disposed in two rows; sternum coarsely punctured, its anterior process short, compressed, and obliquely truncate; abdomen with scattered punctures; anterior tibiæ with two acute lateral spines; pygidium densely hairy above, transversely striate beneath.

Head rufous, the base between the eyes and antennæ black; thorax black, the lateral margins broadly rufous; scutellum black, with an ovate yellow spot; elytra rufous, with a broad sutural band, black at the base, dusky towards the apex, two median and two apical yellow spots; coxæ, femora, and tibiæ rufous, tarsi and tips of the tibiæ black; sternum black, with a yellow lateral band on its anterior margin; abdomen black, with four narrow yellow bands bordering the segments on each side. Hairs rufous, those on the pygidium and apex of abdomen black. Male ? with a pale yellow round spot on the pygidium.

Length 10 lines.

Hab.—Tondano, N. Celebes (Coll. Wall.).

A very distinct species.

6. Macronota castanea, n. s. (Pl. XI. fig. 6).

Nigra, nitida; elytris disco late castaneis, lateribus sparse punctatis, postice ad suturam striatis; subtus pilis nigris vestita.

Allied to *M. celebensis*, same form, and the head, thorax, and elytra punctate and striate in the same manner, except that the outer short stria on the elytra is wanting. The scutellum with a small group of striæ behind. Entirely black, with the exception of the elytra, which are dark chesnut, with a narrow black border. The whole insect very glossy.

Length 9 lines.

Hab.—Macassar, Celebes (Coll. Wall.).

7. Macronota luctuosa, Vollenhoven.

Macronota luctuosa, Voll. Mem. Ent. i. p. 25, pl. ii. f. 4.

Hab.—Amboyna, Ceram (Coll. Wall.).

This very distinct species is abundant in Ceram and Amboyna, where it seems to replace the various forms of *M. regia*, which are spread over almost all the rest of the Archipelago.

8. Macronota nigerrima, n. s.

Nigra; clypeo minime emarginato; thorace convexo, subheptagono, bituberculato, rugoso-punctato; elytris basi latis, abrupte attenuatis, ad suturam depressis, pone humeros elevatis et foveolatis, lateribus transverse rugosis, prope suturam valde striatis.

Black, shining, clypeus scarcely emarginate, finely punctate, head somewhat tubercled between the eyes; thorax heptagonal, convex, coarsely punctured, with a median furrow, and a polished eminence on each side of it; elytra broad at the base, abruptly sinuate below the shoulders, sides nearly parallel, apex rounded, the region of the suture depressed and deeply striate; at the shoulder a short curved ridge, within which is a depression, the sides transversely rugose; beneath coarsely punctate, scantily clothed with pale yellowish hairs; anterior tibiæ broad, with two very stout teeth below the apical spine; sternal process short, rounded.

Length 7½ lines.

Hab.—Menado, N. Celebes (Coll. Parry).

This curious species seems to come nearest to *M. luctuosa* from Ceram, from which, however, it is very distinct.

9. Macronota vidua, n. s.

Nigra; thorace creberrime punctato, linea mediana punctisque quatuor albis; elytris punctatis et striatis, maculis duodecim parvis albis.

Allied to *M. luctuosa*; black, shining, clypeus with the sides rounded, moderately emarginate, coarsely punctate; thorax densely punctured, a short median line, a spot on the lateral margin, and at the anterior angle, white; scutellum with a small white spot; elytra with a humeral

elevation and a median ridge, the marginal region densely punctate and rugose, the sutural region behind closely striate, a spot on the margin behind the middle, one at the apex, two sutural and two humeral spots, white; pygidium with a central spot; anterior tibiæ with two lateral teeth; beneath punctured, the sides with broad white bands, the sternal process small, scarcely dilated.

Length 7 lines.

Hab.—Philippine Islands (B. M.).

Besides other differences, this species is distinguished from *M. luctuosa* by the antennæ and anterior edge of the clypeus being black instead of rufous.

10. Macronota guttulata, n. s.

Nigra, elongata et attenuata; elytris costatis, punctis albis rotundatis sparsis decoratis.

Black; head keeled between the eyes, coarsely punctate; clypeus elongate, the sides rounded, deeply notched; thorax smooth, considerably lobed behind, with scattered shallow impressions; scutellum elongate, triangular; elytra broad at the shoulders, much attenuated at the apex, faintly striate, an elevated ridge from the shoulder to near the apex, on each side from twenty to thirty small round white spots; anterior tibiæ strong, dilated, roughened, with a strong lateral tooth; under surface closely covered with coarse punctures; sternal process large, straight, compressed at the apex, obliquely truncate; sides of the body and abdomen with white bands.

Length 8½ lines.

Hab.—Philippine Islands (B. M.).

11. Macronota patricia, Gory & Percheron.

Macronota patricia, Gory & Perch. Mon. Cet. p. 320, pl. 63, f. 4.

Hab.—Java (B. M.).

A fine species, near the Indian *M. flavomaculata*.

12. Macronota clathrata, Gory & Percheron.

Macronota clathrata, Gory & Perch. Mon. Cet. p. 326, pl. 64, f. 5.

Hab.—Java.

I have not seen this species, which seems to be very near *M. patricia*.

13. Macronota regia, Fabricius.

Macronota regia, Fab. Syst. El. ii. p. 159; Gory & Perch. Mon. Cet. p. 316, pl. 62, f. 3.

M. fraterna, Westw. Trans. Ent. Soc. 2nd ser. iii. p. 71, pl. vii. f. 5 (Philippines).

M. Forsteni, Voll. Mem. Ent. i. p. 24 (Celebes).

M. venerea, Thoms. Arc. Ent. i. p. 284 (Celebes).

M. apelles, Thoms. Mus. Scient. p. 36 (Batchian).

Hab.—Batchian, Gilolo, Ternate, Morty Island, Kaioa, Celebes, New Guinea, Mysol, Salwatty, Aru Islands (Coll. Wall.); Philippine Islands (B. M.).

Var. *malayana*. Thorax more coarsely and less closely punctured, stripes narrow and pale.

Hab.—Borneo, Sumatra, Penang (Coll. Wall.); Java (B.M.).

My extensive series of specimens from all the above localities shows that there is much variation in each locality, and no permanent characters between specimens from distinct localities, except in those from the western islands, which can, however, only be considered a local form. The Philippine form is not distinguishable from some Moluccan specimens.

14. Macronota variegata, n. s. (Pl. XII. fig. 7).

Nigra, thorace tricarinato, interstitiis crusta rugosa cinereo-fulva vestitis; elytris sub-planis, nigro rubro et cinereo variegatis; subtus rude punctata, lateribus cinereo-aureis.

Black; clypeus a little emarginate, rugose punctate, with an ashy crust, keeled behind between the eyes; thorax with elevated median and lateral ridges, the rest of the surface covered with a rugose ashy crust; scutellum ashy, with a blackish median line; elytra with an elevated ridge from the shoulder to near the apex, and another in continuation of the lateral thoracic ridge, but vanishing about the middle of the elytra, yellowish-red, with three black spots on each side, and a black stripe from the arc at the humeral angle; between the ridges and the black spots are linear patches of the ashy rugose crust, and a patch of the same at the apex between the two black

subapical spots; beneath, the entire prothorax the sides of the sternum, and a broad band on each side of the abdomen, and the pygidium, golden ashy; the whole under surface much punctured, and with the legs clothed with pale yellowish hairs.

Length 8 lines.

Hab.—Penang (Coll. Wall.).

Near *M. cinerascea*, Gory and Perch., in form, but very distinct in other characters.

15. Macronota cervina, n. s. (Pl. XI. fig. 7).

Lata, plana, fulvo-cinerea; capite parvo, antice vix emarginato; thorace heptagono, carina mediana postice abbreviata, alterisque lateralibus conniventibus; elytris maculis quatuor, striis duabus lateralibus alterisque basalibus nigris, pygidio maculis duabus rotundatis nigris.

Fulvous ashy, flat; head small, keeled between the eyes, clypeus pitchy, punctured, scarcely emarginate; thorax small, heptagonal, punctured, the sides nearly parallel, somewhat incurved, posterior angle acute, a central polished keel from the head to a little beyond the middle, and two lateral ones meeting behind, but not reaching the posterior border, the edges also slightly elevated, black; scutellum large, triangular, with a basal pitchy spot; elytra very broad at the base, narrow behind, sides nearly straight, covered with wrinkled striæ which are parallel to the suture near the apex, with black spots and lines, namely, one subquadrate at the shoulder, one smaller near the apex, a line joining these on the side of the suture and an abbreviated line between them near the margin, a small spot near the outer angle of the thorax, a short line between it and the scutellum, and another below it nearer the suture, along which is a line interrupted above the middle; pygidium with an ovate oblique spot on each side; beneath yellowish ashy, the antennæ, tarsi, and lines on the tibiæ, and two hind pairs of femora, black; sternum very coarsely punctured, the sternal space very short, obtuse. Anterior tibiæ with one strong tooth below the apical spine.

Length $6\frac{1}{2}$ lines.

Hab.—Malay Peninsula (Coll. Wall.).

16. Macronota corticalis, n. s.

Rufo-ochracea, pallida; capite linea nigra mediana, clypeo nigro integro; thorace grosse punctato; elytris planis valde striato-rugosis, maculis parvis quinque subquadratis nigris.

Form of *M. cervina*; pale rufous earthy; head punctate, with a black median line, clypeus black, dilated, the front edge entire; thorax heptagonal, moderately lobed, behind flat, with very coarse deep confluent punctures, three small black vertical lines in front, behind which are two small dots; scutellum elongate, deeply punctured; elytra flat, very coarsely and deeply rugose-striate, a spot on the suture just below the scutellum, one on the humeral angle, and one just above the apical angle with a smaller spot within it, black; beneath, the sternum squamulated with black, and a black spot on each side; abdomen coarsely punctured, with a lateral row of spots, and a median double row, that in the last two segments confluent, black; antennæ, tarsi, and tips of the tibiæ black; anterior tibiæ black with two lateral teeth.

Length 7 lines.

Hab.—Penang (B. M.).

17. Macronota thoracica, n. s. (Pl. XII. fig. 3).

Elongata; capite et thorace aureo-fulvo vestitis; elytris nigris, undulatis et carinatis, punctatis, singulis maculis quatuor fulvis; antennis pedibusque rufis.

Head golden fulvous, with a short black keel between the eyes, clypeus with the rounded sides black-edged, the slightly emarginate front rufous-edged; thorax fulvous, densely clothed with short rufous hairs, convex, semicircular in front, sides nearly parallel, hinder angles square, a semicircular middle lobe, the lateral and posterior edges black; scutellum fulvous, elongate, triangular, narrowed behind; elytra black, scantily clothed with rufous hairs, with a strong median and a shorter humeral keel, with scattered punctures at the base, transversely rugose at the sides, and striate in the middle sutural region, a large subquatrate spot on the suture in the middle, a curved spot at the apex, a rounded spot on the outer margin, and an elongate one below the humeral keel all fulvous, as also a large spot on the pygidium;

beneath black, punctured, the sides of the prothorax and sternum, and a band on the lower edge of each abdominal segment, pale golden fulvous; antennæ, femora, tibiæ, and tarsi pale rufous; anterior tibiæ with one small acute tooth below the terminal spine.

Length 9 lines.

Hab.—Tondano, N. Celebes (Coll. Wall.).

This very distinct species seems nearest to *M. philippinensis*. I obtained a single specimen, which appears to be a male, in the mountain district of North Celebes.

18. Macronota flavopunctata, Blanchard.

Tæniodera flavopunctata, Blanch. Cat. Coll. Mus. Paris, i. p. 41.

"Supra nigra, subtus medio nigra, lateribus cinerea, thoracis vittis quinque maculisque duabus baseos, scapulis elytrorumque maculis octo aureis. Long. 14 mm." (Blanchard).

Hab.—Philippine Islands (Paris Museum).

19. Macronota philippinensis, Waterhouse.

Macronota philippinensis, Waterh. Proc. Ent. Soc. 1841, p. 27.

M. auroguttata, Burm. Handb. iii. p. 323.

Hab.—Philippine Islands (Coll. Parry, B. M.).

A very handsome species. One of the same form, and almost equally beautiful, from Siam and Cambodia, I describe below. *

* Macronota Mouhotii, n. s. (Pl. XII. fig. 4).

Nigra, creberrime punctata et dense hirsuta; thorace medio, scutello toto, elytris singulis maculis quatuor suturaque in medio, et pygidio macula rotundata, aureo-rufis.

Clypeus broad, somewhat dilated at the end, emarginate, a narrow keel between the eyes; thorax and elytra very closely punctate, and thickly clothed with black hairs; a stripe on each side of the head, diverging before the eyes, a broad median band on the thorax narrowed in the middle, the whole clypeus, two sub-triangular spots on the outer margin of each elytron, the upper one largest, and a central figure formed of a large anterior and smaller posterior sutural spot, united by a narrow stripe, a round spot on the pygidium, and several large irregular patches on the sides of the body and abdomen, all rich ochreous yellow. Tibiæ and tarsi pitchy, antennæ rufous pitchy.

Length 8 lines.

Hab.—Siam, Cambodia (Coll. Wall. ex Mouhot).

Nearest to *M. philippinensis*, but very distinct.

20. Macronota suturalis, Vollenhoven.

Macronota suturalis, Voll. Mem. Ent. i. p. 25, pl. 2, f. 3.

Hab.—Borneo, Sumatra, Penang (Coll. Wall.).

This species is abundant, and varies considerably in size and colouration. It is most nearly allied to *M. cineracea* of Java.

21. Macronota cineracea, Gory & Percheron.

Macronota cineracea, Gory & Perch. Mon. Cet. p. 324, (*M. cinerea*) pl. 64, f. 3.

M. quartata, Gory & Perch. *ib.* p. 325, pl. 64, f. 4.

Tæniodera cinerea, Burm. Handb. iii. p. 328.

Hab.—Java (Coll. Parry, B. M., *Horsfield*).

22. Macronota antiqua, Gory & Percheron.

Macronota antiqua, Gory & Perch. Mon. Cet. p. 317. pl. 62, f. 4.

Tæniodera antiqua, Burm. Handb. iii. p. 328.

Hab.—Java (Coll. Parry, B. M.).

23. Macronota carbonaria, n. s.

Nigra, obscura; clypeo elongato, emarginato; thorace heptagono, convexo, punctato, postice in medio rotundato; elytris sub-planis, basi dilatatis, postice attenuatis, striis quatuor abbreviatis; sterno convexo, processu parvo, mucronato.

Form of *M. antiqua*, but the posterior lobe of the thorax very short and rounded; clypeus elongate, coarsely punctured and deeply notched; thorax heptagonal, convex, coarsely punctate; scutellum large, triangular, the sides rather rounded; elytra flattish, broad at the base, behind abruptly narrowed, three fine striæ parallel to the suture, the two outer abbreviated, the sides sub-rugose, apex truncate; sternum very convex, punctate, the anterior portion keeled, and terminating in a small compressed mucronate process; anterior tibiæ with one lateral tooth; under-surface more or less clothed with pale yellowish hairs.

Length 9 lines.

Hab.—Java (Coll. Parry).

This species differs in essential points of structure from *M. antiqua* to which it seems most nearly allied. It may possibly be *M. anthracina*, G. & P., but their descriptions are quite inadequate for the separation of forms outwardly resembling each other, however distinct they may really be. It scarcely differs from the black form of *M. egregia*, (post, p. 559), except by the curious sharp sternal tubercle.

24. Macronota monacha, Gory & Percheron.

Macronota monacha, Gory & Perch. Mon. Cet. p. 323, pl. 64, f. 1.

Tæniodera monacha, Burm. Handb. iii. p. 326.

M. Luxerii, Buquet, Ann. Soc. Ent. Fr. 1836, p. 204.

Hab.—Borneo, Singapore, Penang (Coll. Wall.); Java (B. M.).

This pretty species is found in the flowers of palms, but is not abundant.

25. Macronota elongata, Gory & Percheron.

Macronota elongata, Gory & Perch. Mon. Cet. p. 327, pl. 64, f. 6.

Hab.—Borneo, Singapore, Penang (Coll. Wall.).

Found in palm flowers, along with *M. monacha*.

26. Macronota marmorata, n. s. (Pl. XII. fig. 5).

Ochraceo-cinerea, thorace macula subannulari nigra; elytris nigro-marmoratis et maculatis; pygidio maculis duabus nigris; antennis tibiis tarsisque nigris; tibiis posticis spinis duabus terminalibus dilatatis foliaceis.

Clypeus emarginate; head punctate, keeled between the eyes; thorax heptagonal, punctate, ashy-ochre, with a large horseshoe-shaped black mark and an interrupted median line; scutellum triangular, with a black sagittate mark; elytra broad, narrowed behind with an obtuse lateral ridge and slight sutural depression, four waved striæ parallel to the suture, the outer margins and numerous irregular markings and punctures ochre-ashy; pygidium crenate-striate, with two lateral oval spots;

beneath pale ochre, the middle of the sternum and abdomen pitchy black; legs pitchy, with the femora and tibiæ more or less irrorated with ochre; anterior tibiæ with two lateral spines; sternal process very short, obtuse; posterior tibiæ with the two upper terminal spines dilated and foliaceous.

Length 9½ lines.

Hab.—Sarawak, Borneo (Coll. Wall.).

A single specimen of this fine species was taken on foliage in the swampy forests of the Sadong River.

27. Macronota annæ, n. s. (Pl. XII. fig. 6).

Nigra, thorace marginibus et lineis duabus medianis divergentibus cinereo-fulvis; elytris fulvo-rubris, tertia parte apicali nigra, lineis tribus transversis et sutura apicali cinereo-aureis.

Black; clypeus punctured, emarginate; thorax heptagonal, convex, obscurely punctate, a narrow band commencing above each eye, and passing along the outer margin to above the scutellum, where it sends out a branch touching the median line of the thorax, and then curving out so as to approach the starting-point, fulvous-ashy; scutellum triangular, of the same colour, but black across the centre; elytra rather broad at the base, narrowed behind, the basal two-thirds red, with the suture black, and a bent ashy mark across the middle, the apical third black, with the suture and an apical and lateral transverse mark golden ashy; a vertical stripe of the same colour on the pygidium; beneath coarsely punctured, with numerous pale golden-ashy lateral stripes, and scattered pale yellow hairs, which more densely clothe the thighs; anterior tibiæ with two acute lateral teeth; sternal process tubercular, somewhat compressed.

Length 7½ lines.

Hab.—Penang (Coll. Wall.).

Nearest to *M. picta*, but very distinct.

28. Macronota picta, Guérin.

Macronota picta, Guér. Rev. Zool. 1840, p. 81; Schaum, Ann. Soc. Ent. Fr. 1844, p. 369.

M. aurantiaca, Voll. Mém. Ent. i. p. 26, pl. ii. f. 5.

Hab.—Penang (B. M.); Singapore, Malay Peninsula, Borneo (Coll. Wall.); Java (B. M., Horsfield).

In some specimens from Borneo, the yellow of the elytra is replaced by black, the yellow-ashy markings being dull ochre; but I can see no other differences.

22. Macronota egregia, Gory & Percheron.

Macronota egregia, Gory & Perch. Mon. Cet. p. 319, pl. 63, f. 1.

M. biplagiata, G. & P. *ibid*, f. 2.

M. anthracina, G. & P. *ib.* p. 324, pl. 64, f. 2.

Hab.—Java (B. M., Horsfield).

A series of this species in the British Museum shows great variation. Some have the elytra with blood-red spots on the shoulder, or on the middle, and one has small transverse yellowish marks on the elytra, nearly as in *M. Rafflesiana*.

30. Macronota malabariensis, Gory & Percheron.

Macronota malabariensis, Gory & Perch. Mon. Cet. p. 320, pl. 63, f. 3.

Tæniodera malabariensis, Burm. Handb. iii. p. 327.

Hab.—Ceylon, S. India (Gory); Sylhet (B. M.); Penang, Malacca (Coll. Wall., B. M.).

In the Penang specimens, the markings on the elytra are white, and the sutural mark is broadly V-shaped.

31. Macronota Rafflesiana, Westwood.

Macronota Rafflesiana, Westw. Arc. Ent. i. p. 104, pl. 28, f. 4 (1842).

Tæniodera histrio, Burm. Handb. iii. p. 326 (1842).

Hab.—Penang, Sumatra, Malacca, Macassar (Coll. Wall.) (Type, B. M.).

This species appears to be extremely variable. The curved yellow border to the thorax is either very brilliant, or entirely disappears; in some specimens the yellow colour covers two-thirds of the basal portion of the elytra, and is quite immaculate; in others faint indications of black spots beneath the shoulders appear, and these increase in magnitude till, at length, the whole insect is jet black, with the exception of the few pale transverse marks. I believe Burmeister's *T. histrio* to be the same species, and, as I cannot ascertain the exact priority of publication, I adopt the name which is illustrated by a good figure.

32. Macronota quadrilineata, Gory & Percheron.

Macronota quadrilineata, Gory & Perch. Mon. Cet. p. 321, pl. 63, f. 5.

Tæniodera quadrilineata, Burm. Handb. iii. p. 329.

M. scenica, Gory & Perch. Mon. Cet. p. 322, pl. 63, f. 6.

Hab.—Java (Coll. Parry, B. M., Horsfield); India (B. M.).

33. Macronota antennata, n. s.

Nigra, lanugine flavescente vestita; thorace Y signato; elytris rufo-undulato-fasciatis, sutura in medio punctisque sex albo-flavis.

Black, more or less entirely clothed with pale yellow hairs; clypeus large, elongate, dilated, emarginate; head with a black mark between the eyes; thorax small, rounded in front, somewhat narrowed behind, densely punctate, bearing in the middle a yellow line, forked towards the eyes; scutellum large, triangular, pale yellow, the sides only black; elytra with a mark at the base next the scutellum, an interrupted band across the middle deeply curved behind, and a double curved band near the apex, rufous; two small spots below the shoulders, two lateral below the middle, and two linear apical spots pale yellow; pygidium with a large central yellow spot; beneath glossy, finely punctured; an irregular interrupted pale yellow marginal band, the sternal process small, acute; legs slender, entirely black; antennæ with the club as long as the head, bright rufous.

Length 4 lines.

Hab.—Penang (Coll. Parry, B. M.).

A beautiful little species, very distinct from all others, but allied to *M. setipes*, from North China, and apparently nearest to *M. ornata*.

Sub.-fam. IV. SCHIZORHININÆ.

Gen. X. Schizorhina, Kirby.

This is an Australian genus, which has spread over many of the Austro-Malayan islands, extending as far west as Batchian. The larger species are obtained chiefly at the sap of the sugar palm (*Arenga saccharifera*), the smaller ones at the flowers of cocoa-nut palms.

1. Schizorhina flammula, Blanchard.

Schizorhina flammula, Blanch. Voy. au Pol. Sud. Zool. iv. p. 132, Ent. pl. 9, f. 4.

S. Idæ, White, Proc. Zool. Soc. 1856, p. 16, pl. xli. f. 7, ♀.

Hab.—Ceram, Amboyna (Coll. Wall.).

The male specimens are often wholly black, with two elongate patches of orange on the elytra, and have one lateral tooth on the anterior tibiæ, and the hind tibiæ unarmed; the females have the anterior tibiæ with two lateral teeth, and the hind tibiæ with a strong spine, and are coloured more or less as in White's figure. In the Tijdschrift voor Entomologie (vol. vii, p. 155), Vollenhoven notes the varieties of this insect, but says nothing of the sexual differences. It is rare, and is only captured at the sap of the sugar palm (*Arenga saccharifera*.) *

2. Schizorhina nigerrima, Vollenhoven.

Schizorhina nigerrima, Voll. Tijd. v. Ent. vii. p. 156.

"Nigerrima, nitida, clypeo parum emarginato." (Voll.)

Hab.—Morty Is. (Voll.); Batchian (Coll. Wall.).

Distinguished from *S. ebenina*, Butler, by the scarcely emarginate clypeus.

3. Schizorhina emilia, White.

Schizorhina (*Hemipharis?*) *emilia*, White, Proc. Zool. Soc. 1856, p. 16, pl. xli. f. 9.

Hab.—New Hebrides (Coll. Parry, B. M.).

This, and the three following species, form a little group, having a *facies* very distinct from the rest of the genus.

* Schizorhina ebenina, Butler.

Schizorhina ebenina, Butler, Proc. Zool. Soc. 1865, p. 729 (fig.).

Hab.—Oceania ? (B. M., ♀).

This species is very closely allied to *S. flammula*, and if it were known to be from the same locality, I should certainly consider it an extreme black form of that species.

4. Schizorhina Whitei, Thomson.

Schizorhina Whitei, Thoms. Mus. Scient. p. 36.

S. emiliæ ?, Thoms. Arch. Ent. i. p. 429, pl. 16, f. 5. (*nec S. emilia*, White).

Hab.—Ké Islands, Matabello Islands (Coll. Wall.).

The specimens from the Matabello islands (which lie between Ké and Ceram) form a distinct variety of a deep brassy-blue colour, with the tibiæ and the under surface generally brassy-black. They agree, however, in all essential characters, and especially in the deeply impressed line parallel to the suture and scutellum, and the scarcely emarginate clypeus, which distinguishes this species from *S. emilia*. There appear to be no sexual differences in this form.

5. Schizorhina aruana, n. s.

S. Whitei similis sed minor, elongata, purpureo-cuprea, luteo-maculata, elytris lineis punctorum sex ornatis.

Very near *S. Whitei*, but smaller and more elongate, entirely of a bronze colour, with irregular yellowish markings disposed as in *S. Whitei*: the elytra have six lines of somewhat irregular punctures, whereas there are only four, or rarely five, in the former species.

Length 9 lines.

Hab.—Aru Islands (Coll. Wall.).

6. Schizorhina bouruensis, n. s.

S. Whitei similis, sed colore viridi obscuriore, thorace immaculato, et elytris linea suturali interrupta.

Size and form of *S. Whitei*, but of a darker green colour; thorax immaculate, the yellow margin either quite absent or only occupying a small space on each side; elytra with a few markings on the margin or none, the sutural line always interrupted below the scutellum; tibiæ blackish-green, tarsi black.

Length 10-11½ lines.

Hab.—Bouru (Coll. Wall.).

Though the differences between this and *S. Whitei* are small, yet the immaculate thorax, interrupted sutural line, and black tarsi, appear constant in a very large number of specimens, and seem to warrant their separation. Varieties occur of a bronzy-black, with purple metallic reflections.

Gen. XI. Anàcamptorhina, Blanchard.

A very rare genus, and so far as is yet known, confined to New Guinea. In the new species here described, there occurs the sexual peculiarity, unsual in this family, of the elytra of the female being distinctly punctate-striate, while those of the male are quite smooth.

1. Anacamptorhina ignipes, Blanchard.

Anacamptorhina ignipes, Blanch. Voy. au Pol. Sud, Ent. p. 136, pl. 9, f. 9.

"Tota viridi-chalybea, nitidissima; capite punctato, prothorace scutello elytris lævissimis; pedibus rubro-igneis. Long. 25 mill." (Blanch.).

Hab.—New Guinea, N.W. extremity (Coll. Wall.).

In what appears to be the female, the clypeus is much less broadly notched, and rather more punctured; and the anterior tibiæ are slightly broader, and have the teeth stronger.

2. Anacamptorhina fulgida, n. s. (Pl. XIII. fig. 2).

Æneo-aurata, fulgida, tibiis rubro-cupreis, tarsis nigris.

Fem. Clypeo vix emarginato, elytris singulis striis quatuor punctatis.

Golden-green, metallic, very brilliant, tibiæ and antennæ purplish-copper, tarsi black; clypeus of the male finely punctured and very distinctly notched, of the female coarsely punctured and with a scarcely perceptible notch; thorax not quite so wide as the elytra, with a few scattered punctures at the sides; elytra intensely glossy and smooth in the male, less glossy in the female, and with three short lines of punctures on the disk near the base, the line parallel to the suture is also more distinctly punctured than in the male; pygidium broad, compressed, transversely rugose-striate; beneath, with a few coarse scattered punctures, the sides of the abdominal segments with large confluent punctures in the female, smooth in the male except on the extreme margin; sternal spine elongate, attenuate, incurved. Anterior tibiæ with two lateral teeth in both sexes, as in *A. ignipes*.

Length 9½-10½ lines.

Hab.—New Guinea, "N.W. extremity" (Coll. Wall.).

A pair only of this superb insect were obtained, with the other species, on the extreme N.W. Peninsula of New Guinea. They are fortunately of opposite sexes, and enable me to point out the somewhat unusual sexual characters, which are much more strongly marked than in the other species.

Sub.-fam. V. CETONIINÆ.

Gen. XII. Euryomia, Burmeister.

This genus comprises many very distinct-looking insects. Some are found on foliage, others on flowers, and one (*E. quadriguttata*) was taken on a fœtid *Boletus*. The species are spread over the whole Archipelago.

1. Euryomia felina, Gory & Percheron.

Cetonia felina, Gory & Perch. Mon. Cet. p. 270, pl. 52, f. 4.

Hab.—Celebes (Coll. Wall.).

2. Euryomia raja, n. s. (Pl. XIII. fig. 6).

Lata, convexa, supra viridis; clypeo tumido; thorace antice albo-marginato; elytris fasciis brevibus decem marginalibus; epimeris, pygidio, et corpore subtus cinereo-argenteis.

Form of *E. rustica*. Above green; clypeus black, convex, notched in front, punctate; thorax, an irregular hexagon, narrow in front, slightly rounded behind, rather deeply punctured; elytra punctate-striate, the lateral and apical margins black, bearing on each side five transverse white marks, the second from the shoulder longest, the apex of each elytron truncate, not spined, the suture slightly gaping; pygidium silvery white, with a central black spot; beneath silvery white, a median line on the sternum, and a median row of triangular confluent spots on the abdomen, black; legs black, thighs white, with a black line beneath, tibiæ fringed with whitish hairs, anterior tibiæ with one stout sub-apical tooth; sternal process small, rhomboidal.

Length 9½ lines.

Hab.—Penang (Coll. Lamb).

This species has a remarkable similarity in colouration and marking to *E. malayana*, but has no close affinity with that species.

3. Euryomia rustica, n. s. (Pl. XIII. fig. 7).

Lata, convexa, nigra; elytris postice maculis duabus rotundatis et epimeris ochraceis; pygidio et corpore subtus ochraceis, abdomine basi et sterno in medio nigris.

Black; head convex, punctured, clypeus but slightly emarginate; thorax convex, sub-heptagonal, the sides straight, the posterior angles acute, the hind edge rounded, finely punctured; elytra broad, sub-quadrate, convex, slightly wrinkled; finely and indistinctly punctate-striate; a large round spot on each side below the middle, the epimera, and the very large pygidium, ochre; beneath, the body and abdomen are almost entirely covered with an ochreous crust, the median line of the sternum and base of the abdomen are black; legs clothed with pale rufous hairs; anterior tibiæ with one lateral tooth close to the end.

Length 7½ lines.

Hab.—Borneo, "Sarawak" (Coll. Wall.).

A very distinct and well-marked species, not obviously allied to any other of the genus.

4. Euryomia trivittata, n. s. (Pl. XII. fig. 8).

Depressa, nigra; thorace vitta mediana et alteris lateralibus inæqualibus rubris; elytris maculis duabus sub-quadratis rubris.

Black; clypeus rather broad, closely punctate, emarginate; thorax broad, transversely rounded, sub-angular behind, finely punctate, the sides coarsely punctured, a median stripe not quite reaching the clypeus, and an irregular oblique one on each side, red; elytra with four striæ on each side next the suture, beyond punctate, a sub-quadrate red spot on each side above the middle; pygidium red at the base; the epimera red; beneath, black, lateral segment of the sternum red, the sternal process short, abruptly dilated at the end, pubescence pale yellow; anterior tibiæ with one stout lateral tooth near the apex, and a small obscure one below.

Length 7½ lines.

Hab.—Bouru (Coll. Wall.).

A very distinct species, perhaps nearest to *E. marginicollis*.

5. Euryomia cincta, n. s. (Pl. XIII. figs. 3, 4).

Nigra; thorace rugoso-punctato; elytris striatis, lateraliter punctatis, post medium linea alba interrupta, interdum macula basali magna fulvo-rubra.

Black above, opaque; clypeus punctate, emarginate; thorax punctate, more deeply at the sides, the punctures confluent in patches; scutellum smooth; elytra with about four abbreviated striæ parallel to the suture, beyond punctate, somewhat striate, with slightly elevated ridges and an apical tubercle, apex rounded, forming a deep notch at the suture; just beyond the middle is a narrow white somewhat-interrupted band from the outer margin, but not reaching the suture; in some specimens there is, above this band, a large patch of dark brownish-red, extending on to the scutellum, but not quite reaching the base of the elytra; beneath, with a patch of white scales almost covering the coxæ of the hind legs, otherwise immaculate; anterior tibiæ with two lateral teeth, one near the apex; sternal process abruptly dilated at the extremity.

Length 7-8 lines.

Hab.—Penang (Coll. Lamb and Wall.).

As the colouring in this genus is known to vary so much, I have not considered the red-marked specimen distinct, although it looks very different. I can find no other character to separate them, and a series of specimens would probably show many intermediate forms.

6. Euryomia marginicollis, Gory & Percheron.

Cetonia marginicollis, Gory & Perch. Mon. Cet. p. 251, pl. 47, f. 6.

Glycyphana Horsfieldii, Burm. Handb. iii. p. 346.

Hab.—Penang (B. M.); Siam (Coll. Wall.); India (B. M.).

7. Euryomia binotata, Gory & Percheron.

Cetonia binotata, Gory & Perch. Mon. Cet. p. 250, pl. 47, f. 5. *Glycyphana binotata*, Burm. Handb. iii. 347.

Hab.—Java (B. M.); Penang, Malay Peninsula, Borneo (Coll. Wall.).

Gory and Percheron describe the spots on the elytra as white, but figure them as yellow, which is the colour in my specimens.

8. Euryomia regalis, Vollenhoven.

Euryomia regalis, Voll. Tijd. v. Ent. vii. p. 157.

"Atra, supra opaca, pronoti limbo postico et elytrorum vitta hamata sanguinolentis, horum fascia interrupta punctoque aureis; subtus nigra, nitida, maculis aureis fuscisque. Long. 14 mm." (Voll.)

Hab.—Tondano and Macassar, Celebes (Coll. Wall.).

9. Euryomia sumatrensis, Vollenhoven.

Euryomia sumatrensis, Voll. Tijd. v. Ent. vii. p. 157, pl. 10, f. 5.

"Atra, opaca, prothorace rufo, margine pronoti postico undulato nigro. Long. 15 mm." (Voll.)

Hab.—Sumatra (Leyden Mus.).

10. Euryomia Forsteni, Vollenhoven.

Euryomia Forsteni, Voll. Tijd. v. Ent. vii. p. 156, pl. 10, f. 4.

"Atra, supra opaca, pronoti limbo postico sanguineo; epimeris et epipleuris flavis, in singulo elytro maculis tribus aureis. Long. 14 mm." (Voll.)

Hab.—Celebes; "Tondano" (Voll.), "Macassar" (Wall.).

This is probably only a variety with the principal markings obsolete, as it agrees with *E. regalis* in all essential characters.

11. Euryomia bella, n. s. (Pl. XIII. fig. 5).

E. regali similis sed major; scutello nigro, elytris lineis rubris interruptis et maculis duabus apicalibus sanguineis.

Black, velvety above; head and clypeus as in *E. regalis;* thorax margined at the sides and behind with blood red (interrupted at the scutellum); elytra with a short line at the shoulder, and an oval spot near the apex, blood red, a yellow median band of four linear spots; the pygidium rich chrome-yellow; beneath, shining black, four ovate lateral spots on the abdomen, one on the margin of the hind coxæ, and one on the epimera, orange-ochre; the sternum rugose-striate, and the sternal process transversely dilated.

Length 8 lines.

Hab.—Batchian (Coll. Wall.).

This species is closely allied to *E. regalis*, but has the spots beneath differently placed, as well as being differently coloured above, and much larger.

12. Euryomia quadriguttata, Vollenhoven.

Euryomia quadriguttata, Voll. Tijd. v. Ent. vii. p. 58.

"Nigra, opaca, in singulo elytro maculis duabus transversalibus, in meso- et meta-thorace necnon in abdomine maculis lateralibus flavis. Long. 14-17 mm." (Voll.)

Hab.—Ceram, Batchian, Gilolo, Morty Is. (Coll. Wall.).

Vollenhoven gives Sumatra also as a locality, but it is probable that a specimen of the nearly allied *E. binotata*, Gory & Perch., has been mistaken for the present species.

13. Euryomia celebensis, n. s. (Pl. XIII. fig. 8).

Nigra, supra opaca; thorace angulis externis sanguineo-marginatis, elytris maculis quatuor et epimeris aureis; subtus immaculata, aut macula utrinque abdominali basali alba.

Black, above opaque, velvety; head and clypeus finely punctate, the latter emarginate; thorax red-margined at the outer angles only; elytra with a large median and smaller sub-apical marginal spot, and the epimera, chrome-yellow; scutellum and pygidium immaculate; beneath shining rugose-punctate, finely hirsute, immaculate, or with a white spot on each side of the second abdominal segment; a small yellow spot on the outer edge of the posterior coxæ.

Length 7 lines.

Hab.—Macassar and Tondano, Celebes (Coll. Wall.).

Allied to *E. binotata*, but sufficiently distinct by the arrangement of its spots and markings, although not presenting any tangible structural differences.

14. Euryomia æthiessida, n. s.

Glycyphana æthiessida, (White, MS., List of Ceton. B. M. p. 20).

Nigra, subtus nitida, supra opaca; thorace maculis duabus anterioribus fulvis; elytris maculis quatuor fasciam transversam formantibus; subtus maculis ovatis sexdecim albis ornata.

Near *E. quadriguttata*. Black, above opaque, clypeus finely punctate, notched; head convex; thorax obscurely

punctate at the sides, near each anterior angle an elongate fulvous spot; elytra punctate-striate, a transverse band across the middle of four fulvous spots, the middle ones small; the epimera and coxæ with whitish spots; beneath, shining black, five white spots on each margin (three on the abdomen), and three on each side the median line (two on the abdomen); sternal process much dilated transversely.

Length 7 lines.

Hab.—Philippine Islands (Coll. Parry, B. M.).

15. Euryomia aterrima, Wiedemann.

Cetonia aterrima, Wied. Zool. Mag. ii. p. 86; Gory & Perch. Mon. Cet. p. 252, pl. 48, f. 1.

Hab.—Java (B. M.).

16. Euryomia papua, n. s.

Nigra, supra opaca; thorace punctato; elytris striatis et impressis; pygidio fere toto aurantiaco: subtus abdomine maculis quatuor utrinque elongatis albis.

Black, above velvety; clypeus shining, punctate, slightly emarginate; thorax covered with close, faint, large punctures; elytra with five striæ on each side, the suture punctured beyond, moderately hollowed below the shoulders; pygidium covered with a large orange spot, sometimes divided in the line of the suture; beneath, shining black, rugose punctured, the sternal process short and much dilated laterally; four elongate white spots on each side of the abdomen.

Length 7 lines.

Hab.—New Guinea, Mysol (Coll. Wall.).

A very distinct species, allied to *E. Forsteni*.

17. Euryomia lateralis, n. s. (Pl. XIII. fig. 9).

Supra obscure purpureo-nigra, subtus nigra, nitida; elytris striatis, lateribus striato-punctatis, maculis fulvo-ochraceis marginatis; subtus corpore toto maculis marginalibus aureo-fulvis vel ochraceis.

Very near *E. perviridis* (*post*, p. 570), and of the same form; black, above dark velvety black, beneath shining black; the elytra with two simple striæ parallel to the suture, beyond punctate-striate,

but not so coarsely as in *E. perviridis;* six unequal buff spots along the lateral margin, and a small one at the apex; a spot on the epimera above, and the upper margin of the pygidium, of the same colour; beneath, the sides of the thorax, sternum, and abdomen with spots of rich golden-buff; sternal process not much dilated, rounded at the end.

Length 7 lines.

Hab.—Ceram (Coll. Wall.).

18. Euryomia perviridis, n. s.

Viridis, supra opaca, subtus cum clypeo nitens; thorace immaculato, elytris punctato-striatis, singulis maculis quatuor vel quinque marginalibus rufo-ochraceis; pygidio et corpore subtus rufo-ochraceo-maculatis; antennis et tarsis nigris.

Form of *E. malayensis*, green, underside and clypeus shining green; clypeus and thorax immaculate, finely punctured; elytra punctate-striate, region of the scutellum smooth—of the apex with scattered punctures, the outer margins blackish, with three larger and three smaller ochreous-orange spots (the smaller sometimes obsolete); pygidium with a broad interrupted ochreous-orange border; the epimera and large spots on the sides of the thorax, sternum, and abdomen beneath, ochreous-orange; sternum and sides of the abdomen coarsely punctured, sternal process dilated, rounded at the end; thighs and body clothed with pale rufous hairs.

Length 7-8½ lines.

Hab.—Amboyna, Ceram, Matabello (Coll. Wall.).

A very distinct species, remarkable for the shining green of the under surface.

19. Euryomia malayensis, Guérin.

Cetonia malayensis, Guér. Rev. Zool. 1840, p. 81: Burm. Handb. iii. p. 793.

Hab.—Penang, Java, Borneo (Coll. Wall.).

In a fine Penang specimen, the elytra are glossed with rich purply-brown, and there is an additional spot near the outer angle of the thorax.

20. Euryomia tenera, n. s.

E. malayensi similis sed minor; elytris apicem versus maculis linearibus sex vel octo albis; subtus thorace et corporis lateribus albis.

Closely resembles *E. malayensis* in form and general appearance; above green, clypeus pitchy; thorax immaculate, finely punctate; elytra with the margins towards the apex blackish, sometimes broadly blue-black, two small transverse white lines on each side towards the apex, another between the lower one and the suture, sometimes wanting, and a small spot close to the apex, white; pygidium with a large triangular white spot on each side; beneath, the thorax entirely white, body and abdomen deep green, or rufous, with broad lateral white bands; legs rufous-greenish, or nearly black.

Length 6½ lines.

Hab.—Penang, Java (B. M., Coll. Wall. and Lamb).

21. Euryomia aspera, n. s.

Obscure viridis; thorace grosse punctato; elytris punctatis et striatis, asperis, maculis sex marginalibus et apicalibus albis.

Near *E. glauca* and *E. tenera*. Above, dark green, clypeus black; thorax finely white-edged at the anterior angle, coarsely punctate, sometimes with a red median line extending on to the scutellum; elytra punctate-striate, deeply striate near the suture behind, finely hirsute, behind the middle on each side two white marginal spots, and one near the suture; a spine at the suture, and a very small sinuation; beneath, black, the sides broadly white-marked, pygidium and legs black.

Length 6 lines.

Hab.—Penang (Coll. Lamb).

22. Euryomia moluccarum, n. s.

Forma ut in *E. malayensi*, supra viridis; clypeo nigro; thorace punctis duobus discalibus maculisque lateralibus (sæpe obsoletis), et elytris singulis punctis tribus discalibus et quatuor vel quinque marginalibus ochreo-flavis; epimeris ochreis. Subtus nigra, lateribus aureo-flavo-maculatis.

Allied to *E. jucunda*, Fald., form of *E. malayensis*; above, green, with spots of ochre-yellow; clypeus black, finely punctate; thorax punctate towards the margins, on the disk two points which are sometimes double, at others almost obsolete, on the lateral margins towards the front two larger spots; elytra with a dot near the shoulder, two on the disk below the middle, and four or five, sometimes double, pretty equally distributed along each margin; the lateral spots are somewhat irregular; epimera ochre-yellow; pygidium ochre-margined, leaving a central black spot; beneath, black, the sides of the body and abdomen with patches of rich golden-ochre, and more or less dotted with rufous pubescence; sternal process dilated, somewhat triangular in front; anterior tarsi with one strong lateral tooth just below the terminal spine.

Length 8-9 lines.

Hab.—Batchian, Gilolo, Kaioa, Morty Island and Celebes (Coll. Wall.).

This species varies in colour; a specimen from Batchian is rich brown, and one from Morty velvety black, but they do not otherwise differ.

23. Euryomia vernalis, n. s.

Supra læte viridis, opaca; elytris singulis maculis quatuor vel quinque marginalibus ochreis; subtus nigra, nitida, convexa, lateribus crusta rufo-ochrea vestitis.

Above, fine green, opaque; clypeus black, shining, finely punctured, deeply notched in front; thorax immaculate, with scattered punctures on the sides; elytra truncate at the apex, finely punctate-striate, the outer edges blackish, ornamented with from three to five small marginal spots on each side; pygidium pale ochre, with a large central black spot; beneath, shining black, the sides of the thorax, sternum, and abdomen broadly crusted with pale reddish-ochre; median line of the sternum elevated and terminating in a dilated process: the hind thighs with an ochreous stripe on the inner edge.

Length 8 lines.

Hab.—Philippine Islands (Coll. Parry).

This species is allied to *E. moluccarum*.

24. Euryomia rufovittata, Guérin.

Cetonia rufovittata, Guér. Rev. Zool. 1840, p. 82.

Hab.—Penang, Malay Peninsula, Borneo (Coll. Wall.).

Guérin's description of this is very imperfect. The upper surface is green, except the clypeus, which is more or less rufous. The thorax is either immaculate, or has the anterior edge broadly red-margined, and a red patch on each side, a little above the base, and almost meeting above the scutellum. The stripe on the elytra is often more or less obsolete, and the elytra are obscurely punctate-striate.

25. Euryomia Bowringii, n. s. (Pl. XIV. fig. 5).

E. rufovittatæ similis, sed major; thorace immaculato; elytris lineis brevibus marginalibus et punctis apicalibus albis.

Above, green; clypeus rufous, finely punctate, emarginate; thorax finely punctate, immaculate; elytra with a longitudinal rufous stripe from the shoulder to near the apex, two fine short transverse marks on the outer margin beyond the middle, and a spot at the apex, with the epimera, white; under surface, pygidium, and legs pitchy rufous, with a greenish tinge; sternal process broad, much dilated; sides of the body and abdomen white-banded.

Length 7 lines.

Hab.—Borneo (Coll. Wall.); Penang (B. M.).

26. Euryomia quadricolor, Wiedemann.

Cetonia quadricolor, Wied. Zool. Mag. ii. p. 88.
Glycyphana quadricolor, Burm. Handb. iii. 349.

"Obscure viridis, supra opaca, subtus nitida; pronoti annulo intra-marginali aurantiaco; elytris, pectore abdomineque albonotatis. Long. 5 lin." (Burm.)

Hab.—Java (Wied., Burm.); Penang (Coll. Lamb).

27. Euryomia glauca, Blanchard.

Cetonia glauca, Blanch. Voy. au Pol. Sud. iv. p. 131, pl. 9, f. 5.

"Oblonga, parallela, obscure viridis, clypeo emarginato; prothorace punctato, limbo laterali maculisque duabus minutis albido-sericeis; elytris seriato-punctatis, singulis maculis quinque albido-sericeis. Long. 11 mill." (Blanch.)

Var.—Minor, maculis nonnullis sæpe obsoletis.

Hab.—Ceram, Mysol (Coll. Wall.); *Var.*, Mysol (Coll. Wall.).

28. Euryomia sinuata, n. s.

E. tenerœ similis, viridis, elytris feminæ ad apicem valde sinuatis, singulis maculis sex parvis albis. Subtus nigra, lateribus albo-maculatis.

Near to some forms of *E. tenera;* above, uniform green; clypeus black, emarginate, punctate; thorax roundish, finely punctate, with a small white mark at each anterior angle; elytra punctate-striate and finely hirsute, the apex spined at the suture and sinuated (very deeply in the female), with two or three white spots on each side parallel to the suture and three others near the margin, all in the apical half of the elytra; pygidium immaculate in the male, with a broad patch of white on each side in the female; beneath, black, with white patches on the sides of the thorax, body and abdomen.

Length 6 lines.

Hab.—Malacca, Borneo (Coll. Wall.).

29. Euryomia labecula, n. s.

Viridis, clypeo nigro; capite maculis duabus, thorace duabus vel quatuor, elytris singulis octo, albis; subtus nigra, maculis lateralibus albis.

Very near *E. sinuata*, the elytra spined, but not sinuated at the apex; above, green, the clypeus black, thorax with the anterior angle and two or four points white; scutellum broader than in *E. sinuata;* elytra with two spots at each shoulder, and five or six others disposed as in *E. sinuata*, but more prominent, white; pygidium black or white bordered; beneath, black, marked with white on the sides, much more broadly in the female.

Length 6 lines.

Hab.—Macassar, Celebes (Coll. Wall.).

30. Euryomia modesta, Fabricius.

Cetonia modesta, Fab. Syst El. ii. 158; Gory & Perch. Mon. Cet. p. 286, pl. 55, f. 7.

Glycyphana modesta, Burm. Handb. iii. p. 352.

Hab.—Penang, Borneo, Java, Sumatra (Coll. Wall.); Philippine Islands (Coll. Parry).

31. Euryomia cuculus, Burmeister.

Glycyphana cuculus, Burm. Handb. iii. p. 352.

"Viridis, albido sparsim squamosa, subtus in latere alba; punctis duobus pronoti, elytri singuli septem albis, pygidio immaculato. Long. 5 lin." (Burm.).

Hab.—Philippine Islands.

This is probably only a variety of *E. modesta*.

32. Euryomia Swainsonii, Gory & Percheron.

Cetonia Swainson, Gory & Perch. Mon. Cet. p. 249, pl. 47, f. 4.

? C. bimacula, Wied. Zool. Mag. ii. p. 85.

Hab.—Tenasserim (?), Java (B. M.).

33. Euryomia incerta, n. s. (Pl. XIV. figs. 1, 2).

Nigra, supra viridi-obscura vel viridi-rufa, sæpe rufo-varia; thorace albo-marginato, sæpe bipunctato; elytris maculatis, ponè medium maculis quatuor in fasciam curvatam dispositis.

Black, above dark green or brownish-green, often with reddish patches; clypeus black, punctate; thorax blackish, with a broad lateral border and two discal points, yellowish-white, the border often continues on the head, and extends on to the sides of the clypeus; scutellum often reddish, sometimes nearly black; elytra obscurely punctate-striate and finely hirsute with minute scattered bristly points, a little behind the middle a band formed of four spots, two larger touching the outer margin and two smaller near the suture advanced a little forward, often a single humeral spot and sometimes a group in the anterior part of the elytra; behind, a second apical band of four smaller spots parallel to the

first, and an apical spot; these are not unfrequently all absent; the pygidium is generally bordered more or less broadly, and on the undersurface the thorax, sternum, and abdomen are spotted on the sides, all these spots and markings being white or yellowish; the whole body beneath is rather densely covered with bristly points, and the sternal process is short and very much dilated at the end.

Length 5 lines.

Hab.—New Guinea, Waigiou, Mysol, Aru Islands, Timor (Coll. Wall.).

A variable species, closely allied to *E. brunnipes* and to *E. fasciata*, from Australia, but I think distinct; the median band of spots is the most constant. In a variety from Waigiou, the thorax and scutellum are orange-rufous.

34. Euryomia fulvipicta, n. s. (Pl. XIV. fig. 6).

Viridis; capite lineis vel maculis lateralibus, thorace marginibus lateralibus, elytris singulis vitta obliqua macula magna marginali et fascia curvata apicali, fulvis; pygidio infra fulvo-marginato; subtus viridi-nigra, thorace antico, sterno et abdomine late fulvo-aureo marginatis; processu sternali dilatato; antennis rufis, pedibus rufis vel nigris.

Green, clypeus black, a broad line on each side curved between the eyes, or separated into spots, fulvous-yellow; thorax broadly margined on the sides; elytra with a stripe on each side from near the shoulder converging towards the apex, a large oval spot on the outer margin and a small curved apical band, rich fulvous yellow; pygidium with the lower half of the same colour; beneath, blackish-green, the fore part of the thorax, the sternum and abdomen broadly margined with rich golden-fulvous; the sternal process much dilated; antennæ rufous; legs either light rufous, or pitchy black (the latter specimen is a female).

Length 6 lines.

Hab.—Ceram, Amboyna (Coll. Wall.).

A very distinctly marked and handsome little species.

35. Euryomia cretata, n. s. (Pl. XIV. fig. 4).

Nigra, thorace lateribus et maculis rotundatis duabus albis; elytris obscure viridibus, regione suturali apicem versus nigra, singulis maculis quatuor linearibus et quinque subrotundatis cretaceis; subtus lateribus argenteis.

Black; clypeus shining, closely punctate, emarginate; thorax opaque, obscurely punctate, the lateral margins broader in front, and two spots on the disk, white; scutellum black; elytra dark green, punctate-striate, with simple striæ towards the apex, a black stripe from the middle of each elytron meeting on the suture near the apex, an interrupted stripe parallel to the suture, a short line beyond it towards the shoulder below which is a small dot, and four marginal spots on each side, chalky-white; pygidium pitchy, with a buff mark on each side; beneath, the sides of the thorax and sternum, the epimera, the ends of the coxæ, and a large patch on each side of the abdomen, silvery-white; antennæ and legs black, or pitchy black, hirsute; the sternal process small, flat, dilated at the end.

Length 5 lines.

Hab.—Macassar, Celebes (Coll. Wall.).

Closely allied to *E. aromatica*.

36. Euryomia aromatica, n. s. (Pl. XIV. fig. 3).

Obscure viridis; thorace bipunctato; elytris singulis maculis quinque vel sex, una mediana lineari, altera marginali gemina. Subtus nigro-viridis, hispida, processu sternali valde dilatato.

Above, dull green; clypeus black, notched and punctate; thorax finely punctate and hispid, the disc with two white spots and the anterior angles more or less white-margined, a median line on the thorax extending on to the scutellum is sometimes more or less rufous; elytra rounded behind, the suture very slightly produced, rather irregularly punctate-striate, and finely hispid, on each side five or six opaque white spots, one on the disc near the base, small and roundish, one lower down and nearer the suture larger and linear, slightly below this and close to the margin a small double spot, near the apex an oblique spot and one or two small ones at the apical margin;

pygidium black, hispid, sometimes with an interrupted whitish border; beneath, blackish green, punctate and hispid, the sides and appendages of the sternum more or less patched with white, the abdomen variably white-bordered; the sternal process flat, truncate, much dilated; anterior tibiæ with one sharp tooth near the apex, and a blunt indistinct one lower down; legs and antennæ black.

Length 6 lines.

Hab.—Batchian, Morty Island, Kaioa Islands (Coll. Wall.).

Closely allied to *E. glauca* and *E. aspera*, but appears to differ constantly both in marking and in other characters.

37. Euryomia plagiata, Schaum.

Glycyphana plagiata, Schaum, Trans. Ent. Soc. v. p. 69.

Hab.—Java (B. M., Coll. Parry).

38. Euryomia penanga, n. s.

Nigra, parva, subquadrata; elytris singulis macula magna subquadrata rubra; pygidio et lateribus corporis abdominisque cinereo-albis.

Black, thorax convex, finely punctate; scutellum large; elytra punctate-striate, two pairs of deep striæ parallel to the suture behind, on the sides a large roundish red spot: pygidium very large, ashy-yellow; beneath, black, shining, the sides of the body and abdomen ashy-white; legs and antennæ black.

Length $4\frac{1}{2}$ lines.

Hab.—Penang (B. M.).

39. Euryomia Macquarti, Gory & Percheron.

Cetonia Macquart, Gory & Perch. Mon. Cet. p. 251, pl. 47, f. 7.

Glycyphana Macquarti, Burm. Handb. iii. p. 347.

Hab.—Java (Coll. Parry).

40. Euryomia Behrii, Schaum.

Glycyphana Behrii, Schaum, Trans. Ent. Soc. v. p. 70.

Hab.—A small island east of Java (Coll. Schaum).

41. Euryomia festiva, Fabricius.

Cetonia festiva, Fabr. Syst. Eleuth. ii. 153 ; Schön. Syn. Ins. I. iii. p. 137 ; Burm. Handb. iii. p. 791.

Hab.—Sumatra (? Lac.) ; Tranquebar (Burm.).

Burmeister thinks this is a *Protœtia,* Lacordaire makes it a *Euryomia* of the section *Glycyphana.* I have not seen a specimen.

(I do not give *Euryomia jucunda* = *C. Goryi,* Guér., said to be from Java, because authentic specimens are now known from India, China, and Mongolia, a range which renders it probable that the former locality is erroneous.)

Gen. XIII. Cetonia, Fabricius.

All the Malayan species belong to the *Protœtia* group. The fine large species from Celebes were obtained at the sap of the sugar palm ; *C. taciturna* was found on foliage, while *C. mandarinea* was taken eating twigs and leaves, and on another occasion on posts of houses. This genus is almost absent from the Australian region.

1. Cetonia spectabilis, Schaum.

Cetonia spectabilis, Schaum, Anal. Entom. p. 43.
Protœtia spectabilis, Burm. Handb. iii. p. 473.

Hab.—Java (Coll. Wall., B. M.).

2. Cetonia bifenestrata, Chevrolat.

Cetonia bifenestrata, Chevr. Rev. Zool. 1841, p. 223.
Protœtia bifenestrata, Burm. Handb. iii. p. 492.
C. indra, Hope, Proc. Ent. Soc. 1841, p. 33.
C. gemella, Newm. Entomol. i. p. 169.

Hab.—Philippine Islands (B. M.).

3. Cetonia ciocolatina, n. s. (Pl. XIV. fig. 8).

Magna, subtus purpureo-cuprea, supra fusco-brunnea, opaca ; elytris lævibus, ad suturam apicem versus elevatis, apice spinosis, lateribus et fasciis paucis brevibus apicem versus luteis.

Above, deep opaque chocolate-brown; clypeus entire in front, with a raised border, closely punctured; thorax smooth, sub-triangular; elytra smooth, the apical half with an angular sutural keel ending in an acute spine, a short sub-apical transverse stria, one above it near the suture, and several short striæ and dots on the margin, orange-ochre; pygidium with a spot of the same colour near each lateral angle; beneath, purple copper, shining; a row of orange-buff spots on the sides of the body and abdomen; the sternal spine dilated and rhomboidal; the head and legs fringed with rufous hairs; the anterior tibiæ with a strong tooth below the apex, and an obscure tubercle about the middle; a notch on the outer margin of the middle and hind tibiæ.

Length 16 lines.

Hab.—Tondano, Celebes (Coll. Wall.).

4. Cetonia procera, White.

Cetonia (*Protœtia*) *procera*, White, Proc. Zool. Soc. 1856, p. 17, pl xli. f. 6.

Hab.—Philippine Islands (B. M.).

5. Cetonia inanis, n. s.

Viridis, subtus metallica, supra obscura, opaca; clypeo metallico, punctato, margine integro; thorace elytrisque marginibus punctatis, horum apice ad suturam minime producto, rotundato; subtus, lateribus valde striatis, processu sternali ad apicem valde dilatato.

Green, immaculate; above, dull opaque green; clypeus metallic, entire, finely punctate; thorax with the anterior angles acute, the posterior rounded, the lateral margins punctate; elytra smooth, with an abrupt elevation towards the apex, the sides and apex punctate towards the suture, sub-striate; the apex of the elytra very slightly produced at the suture, and blunt; beneath, metallic brassy-green, the sides of the thorax, sternum, and hind coxæ deeply striate; the sternal process very broadly dilated at the end into a hammer-shaped process; thighs and tibiæ with fringes of rufous hairs.

Length 1 inch.

Hab.—Java (B. M.).

A fine and distinct species, of the form of *C. regalis*.

6. Cetonia celebica, n. s. (Pl. XIV. fig. 7).

Nigro-cuprea, nitida, punctata, elytris singulis maculis sex fulvis, apice ad suturam acuto, nec spinoso. Subtus cuprea, corpore et abdominis lateribus rufo-aureo-maculatis.

Above, deep purplish-bronze or coppery-black, shining; head thickly punctate; clypeus entire, bordered; thorax sub-triangular, finely punctured on the disk, more coarsely on the sides, sometimes with a marginal line of buff-ochre; scutellum triangular, smooth; elytra finely but irregularly punctured, an obtuse ridge on each side towards the apex, where there is an angular keel on each side of the suture, the apex acute but not spined; three lateral and three sutural transverse golden-buff spots, and a smaller one on the inner angle of the epimera above; a sub-triangular border on each side of the pygidium. Beneath, dark coppery purple, smooth; the sides of the abdomen body and thorax banded and spotted with deep golden-rufous; the sternal spine much dilated and almost circular at the end; legs fringed with deep rufous hairs; anterior tibiæ with a strong tooth below the apex, and a smaller one beneath; middle and hind tibiæ slightly notched on the outer margin towards the apex.

Length 10½ lines.

Hab.—Tondano, N. Celebes (Coll. Wall.).

Somewhat allied to *C. philippensis*, but larger, broader, and differently marked and coloured.

7. Cetonia philippensis, Fabricius.

Cetonia philippensis, Fab. Syst. El. ii. p. 152.
Protœtia philippensis, Burm. Handb. iii. p. 496.
C. hieroglyphica, Gory & Perch. Mon. Cet. p. 175, pl. 31, f. 1.

Hab.—Philippine Islands (Coll. Wall., B. M.).

8. Cetonia Guerini, Eydoux & Souleyet.

Cetonia Guerini, Eyd. et Soul. Rev. Zool. 1839, p. 265.
Gametis Guerinii, Burm. Handb. v. p. 556.
C. Rogeri, Burm. Handb. iii. p. 796.

Hab.—Philippine Islands (B. M.).

9. Cetonia ferruginea, Gory & Percheron.

Cetonia ferruginea, Gory & Perch. Mon. Cet. p. 196, pl. 35. f. 3.
C. sybaritica, Newm. Entomol. i. p. 169.
Pratœtia cinnamomea, Burm. Handb. iii. p. 491.
Hab.—Philippine Islands (Coll. Wall., B. M.).

10. Cetonia anovittata, Chevrolat.

Cetonia anovittata, Chevr. Rev. Zool. 1841, p. 223.
C. chloris, Newm. Entomol. i. p. 170.
Protœtia manillarum, Burm. Handb. iii. p. 497 (*nec* Chevr.).
Hab.—Philippine Islands (Coll. Parry, B. M.).

A very variable species, very close to *C. ferruginea*, but generally of a more bronze or purple colour, and with strong sutural spines to the elytra. In Major Parry's collection are two large specimens, one bronzy-green, the other blue-black, which must be referred to this species.

11. Cetonia Bremii, Schaum.

Protœtia Bremii, Schaum, Ann. Soc. Ent. Fr. 1844, p. 418.
Hab.—Philippine Islands (B. M.).

Near *C. ferruginea* and *C. anovittata*, from both of which it appears to me to differ sufficiently.

12. Cetonia dubia, n. s.

Protœtia dubia, MS. (B. M.).

Plana, depressa, lateribus angulatis, supra olivaceo-cuprea, subtus cupreo-ænea; thorace elytrisque albo maculatis; processu sternali non dilatato, incurvato.

Above, coppery-olive; clypeus punctate, the anterior margin recurved and notched; thorax sub-triangular, punctate, with two linear marks and several spots whitish; scutellum elongate, triangular, with a white band at the base; elytra flat, sub-quadrate, the sides angular, with numerous irregular spots and linear markings;

pygidium white-marked; beneath, bronzy-green or coppery, the sides more or less covered with a whitish crust; the sternal process straight, not dilated at the end, incurved in the (?) female.

Length 8-10 lines.

Hab.—Philippine Islands (B. M.).

A curious species, much resembling *C. Bremii*, but at once distinguished by its flatter elytra and simple sternal process. Two specimens in the British Museum differ somewhat in the form of the sternal process, which may be a sexual difference, as they are otherwise very much alike. This makes some approach to my genus *Sternoplus* (*post*, p. 589).

13. Cetonia bipunctata, Gory & Percheron.

Cetonia bipunctata, G. & P. Mon. Cet. p. 201. pl. 36, f. 4.
Protœtia bipunctata, Burm. Handb. iii. p. 489.

Hab.—Celebes (Coll. Wall., B. M.).

14. Cetonia prolongata, Gory & Percheron.

Cetonia prolongata, G. & P. Mon. Cet. p. 173, pl. 30, f. 5.

Hab.—Ternate, Kaioa (Coll. Wall.); Java? (G. & P.).

I have no doubt that this species is not found in Java. It appears restricted to the small chain of islands from Ternate southward to Kaioa, where it is plentiful, but is replaced by *C. taciturna* in Gilolo and Batchian.

15. Cetonia obtusa, n. s.

Nigro-ænea; thorace punctato, albo-marginato; elytris truncatis, punctatis, utrinque bicarinatis, transverse albo-maculatis; subtus purpureo-cuprea, corpore pedibusque pilis pallidis vestitis.

Brassy-black; clypeus sub-quadrate, rounded in front; thorax coarsely punctate, the sides margined with whitish; elytra sub-quadrate, truncate at the apex, the suture not spined, two polished ridges on each side, the sides transversely striate, with numerous short transverse whitish markings; beneath coppery-purple, the sternal process dilated, the thorax, body, and thighs thickly clothed with fine yellowish hairs; middle tibiæ deeply excavated near the apex.

Length 6½ lines.

Hab.—Java (B. M.).

Somewhat resembles *C. prolongata*, but differs in many important characters.

16. Cetonia taciturna, Guérin.

Cetonia taciturna, Guér. Voy. Coquille, Ent. pl. iii. f. 12.
C. Dejean, Gory & Perch. Mon. Cet. p. 213, pl. 39, f. 4.

Hab.—Bouru, Amboyna, Ceram, Goram, Ké Islands, Batchian, Gilolo, Sula Islands, Makian, Morty Island, Gagie Island, Aru Islands (Coll. Wall.); Louisiade Archipelago (B. M.).

17. Cetonia manillarum, Chevrolat.

Cetonia manillarum, Chevr. Rev. Zool. 1841, p. 223.
C. ambigua, Chevr. *l. c.*
C. subviridis, Newm. Entomol. i. p. 170.
C. germana, Newm. *l. c.*
Protœtia chlorotica, Burm. Handb. iii. p. 500.

Hab.—Philippine Islands (B. M.).

18. Cetonia acuminata, Fabricius.

Cetonia acuminata, Fabr. Syst. El. ii. p. 154. *Protœtia acuminata*, Burm. Handb. iii. p. 479.
C. marmorata, Fabr. Syst. El. ii. p. 154.
C. marmorea, Weber, Obser. Ent. p. 69.
C. corrosa, Gory & Perch. Mon. Cet. p. 204, pl. 37, f. 2.

Hab.—Sumatra, Flores, Timor, Banca (Coll. Wall.); Java (B. M.); Penang (Coll. Lamb).

19. Cetonia mandarinea, Weber.

Cetonia mandarinea, Weber, Obser. Ent. p. 68.
C. mixta, Weber, *lib. cit.* p. 69.
C. atomaria, Fabr. Syst. El. ii. p. 153; Gory & Perch. Mon. Cet. p. 204, pl. 37, f. 3.
C. fusca, Herbst, Col. iii. p. 257, pl. 32, f. 4.
C. fictilis, Newm. Ent. Mag. v. p. 169.
C. querula, Newm. Entomol. i. p. 171.

Hab.—Philippine Islands, Celebes, Borneo, Banca (Coll. Wall.); Sumatra, Java (B. M.); Penang (Coll. Lamb).

20. Cetonia arrogans, n. s.

Protœtia arrogans, MS. (B. M.).

C. mandarineæ similis, sed thorace maculis parvis rotundatis fulvis; elytris ad suturam minus spinosis; subtus rufo-maculata et pilis rufis vestita.

Very near *C. mandarinea*, yet looking very distinct; also near *C. intricata*, Saund. Above, deep brown; clypeus quadrate, punctate, rather wider than in *C. mandarinea*; thorax with about sixteen small roundish fulvous spots; elytra with numerous small spots grouped in two irregular curved bands, the apex slightly spined at the suture; beneath, coppery or coppery-black, the sides more or less marked with rufous and much clothed with rufous hairs; the sternal process moderately dilated.

Length 7 lines.

Hab.—Philippine Islands (B. M.).

21. Cetonia ciliata, Olivier.

Cetonia ciliata, Oliv. Ent. I. No. vi. p. 90, pl. xii. f. 112.
Protœtia ciliata, Burm. Handb. iii. p. 488.
C. lunulata, Fab. Syst. El. ii. p. 152.

Hab.—Java (B. M.); Sumatra? (Burm.).

22. Cetonia porcina, n. s.

Rufo-brunnea; clypeo bidentato recurvato; thorace viridi-brunneo, limbo lato ochraceo interne angulato; elytris ochraceo-maculatis et punctatis; subtus æneo-cuprea, crusta ochracea fere in toto vestita.

Above, reddish-brown; clypeus bidentate and turned up in front, dotted with ochre; thorax olive-green, finely dotted with ochre, a broad border on each side angulated within, pale ochre, and two spots of the same colour on the disk; elytra truncate at the apex, the suture spined, an elevated ridge on each side behind, with numerous curved transverse marks (six more distinct) and many small dots, pale ochreous; beneath, brassy-bronze, the whole surface except the median line of the sternum and abdomen covered with a crust of pale rufous ochre; the legs rather short and thick, striated and dotted with ochre; the sternal process very much dilated transversely; anterior tibiæ unarmed.

Length 7 lines.

Hab.—Java (Coll. Parry).

This may be the same as *C. cupripes*, Wied., *rufo-cuprea*, G. & P., (*post*, p. 587); but their descriptions do not well correspond, and the size they give is much less.

23. Cetonia solorensis, n. s.

Rufo-cuprea, pallida, sub-viridis, hirsuta ; clypeo emarginato; thorace punctato, utrinque maculis tribus parvis flavis; elytris punctatis, maculis sparsis flavis ; subtus abdomine cupreo metallico, corpore valde hirsuto.

Pale coppery-brown, tinged with green ; the whole upper surface closely set with yellow hairs ; clypeus coarsely punctured, with an elevated border and notched in front ; thorax convex, regularly punctured, with a median line somewhat elevated and smooth, three small yellow spots on each side of the disk ; elytra punctate, the sides obscurely keeled towards the apex, the suture elevated behind and spined at the apex, with scattered and irregular dots and marks, pale yellow ; beneath, the abdomen coppery polished, with a double row of yellow marks on each side, the rest of the body and legs densely clothed with pale yellowish hairs ; the sternal spine dilated, rounded at the end ; anterior tibiæ with two teeth below the apical spine, the lower one indistinct ; middle and hind tibiæ deeply notched.

Length 9 lines.

Hab.—Solor Island, east of Flores (Coll. Wall.).

Allied to *C. acuminata*, Fab., but the specimen in my collection is very distinct from all I have seen of that species.

24. Cetonia obscurella, Gory & Percheron.

Cetonia obscurella, Gory & Perch. Mon. Cet. p. 270, pl. 52, f. 5.

Hab.—Java (Coll. Wall.) ; Sumatra (B. M.).

25. Cetonia crassipes, n. s.

Supra olivaceo-brunnea, hirta ; elytris apicibus ochraceo-brunneis ; subtus rufo-nigra, thorace et sterno ochraceis, nigro-irroratis ; abdomine ochraceo-marginato ; pedibus posterioribus valde crassis.

Above, olive-brown ; clypeus entire, semicircular in front ; thorax convex, hispid with short pale rufous hairs more dense on the margins and behind ; scutellum triangular, elongate ; elytra hispid, a small spot on each side

near the suture, a large apical patch extending a little up the lateral margins, and the pygidium, rufous ochre; beneath, purplish-coppery-black, the abdomen with the penultimate segment broadly, the rest narrowly margined with rufous ochre; the rest of the under surface, except the median line of the sternum, pale ochre irrorated with black; sternal process dilated, acutely rhomboidal; legs very thick, especially the hind pair, dotted and lined with ochre scales, and fringed with pale ochre hairs; anterior tibiæ dilated, with two teeth below the apex, the lower one small and indistinct.

Length 7 lines.

Hab.—Penang (Coll. Parry).

26. Cetonia mixta, Fabricius.

Cetonia mixta, Fabr. Syst. El. ii. p. 152.

C. confusa, Gory & Perch. Mon. Cet. p. 266, pl. 51, f. 4.

Hab.—Sumatra (Lac.).

27. Cetonia cupripes, Wiedemann.

Cetonia cupripes, Wied. in Germ. Mag. iv. p. 146.

C. rufocuprea, G. & P. Mon. Cet. p. 205, pl. 37, f. 4.

Hab.—Java.

28. Cetonia guttulata, Burmeister.

Protœtia guttulata, Burm. Handb. iii. p. 483.

Hab.—Timor.

29. Cetonia resplendens, Burmeister.

Protœtia resplendens, Burm. Handb. iii. p. 475.

Hab.—Timor ? (Lac.); Siwas ? (Burm.).

30. Cetonia (?) megaspilota, n. s.

Protœtia megaspilota, MS. (B. M.).

Nigra, clypeo bidentato; supra maculis viginti nacreis; subtus processu sternali divergente, maculis irregularibus nacreis.

Black; clypeus elongate, narrowed at the apex and deeply notched; head with a ridge between the eyes, punctate; thorax convex, punctate, with a median line and a large lateral patch fine pearly white; scutellum and

epimera pearly; elytra with faint chain-like striæ, and strong sutural spines at the apex; three marginal and four discal spots on each side, with a rich pearly lustre; pygidium with a central pearly spot; beneath, with four rows of spots on the abdomen and irregular patches on the sternum and abdomen greenish pearly; sternal process elongate, straight, somewhat recurved at the end.

Length 8 lines.

Hab.—Philippine Islands (B. M.).

A most elegant and very distinct species.

31. Cetonia (?) francolina, Burmeister.

Cetonia francolina, Burm. Handb. iii. p. 794.

"Atra, supra opaca, subtus nitida, undique albo-maculata; pronoti lineis quinque guttisque duabus, elytro singulo guttis octo, scutello linea, albis. Long. 5 lin." (Burm.).

Hab.—Philippine Islands (B. M., Coll. Parry).

The specimen in the British Museum has the spots ochre-buff.

32. Cetonia (?) irrorata, n. s.

Nigra, nitida, sub-convexa, grosse punctata, lateribus albo-irroratis; elytris sinuatis apice truncatis; subtus corpore et femoribus pilis albis vestitis.

Black, shining, sub-convex; clypeus short, with two upturned teeth in front, wide apart; thorax convex, coarsely punctate, the sides broadly irrorated with white; scutellum sub-triangular, smooth, with a few punctures at the basal angles; elytra rugosely punctate, and with faint elevated ridges, dotted and irrorated with white more densely towards the margins, the apex truncate; pygidium irrorated with white at the sides; beneath, a white spot at the lower angles of each abdominal segment; the thighs thorax and body clothed with white hairs; anterior tibiæ with two strong teeth below the apex; the sternal process abruptly dilated at the end.

Length 7 lines.

Hab.—Philippine Islands (Coll. Parry).

This insect appears to have some of the characters of the African genus *Diplognatha*, and it will probably form a new genus between it and true *Cetonia*. (It is the *Ænopoptochilus*, White, MS.). I refrain, however, from forming new genera, without a more complete knowledge of the whole family.

Gen. XIV. Sternoplus, n. g.

Clypeus with the sides elevated and terminating in two incurved teeth; thorax and elytra as in *Cetonia*; sternal process elongate, not dilated, abruptly divergent, formed almost entirely of the metasternum, without a suture; anterior tibiæ with only one small lateral tooth, middle and hind tibiæ with a small marginal notch.

Type, *Cetonia Schaumii*, White.

Has the appearance of a *Cetonia* of the *Protœtia* type, but differs from these so remarkably as to require the establishment of a new genus. The species was taken on foliage near Macassar, and at the sap of the sugar palm in North Celebes.

1. Sternoplus Schaumii, White.

Cetonia (*Protœtia*) *Schaumii*, White, Proc. Zool. Soc. 1856, p. 17, pl. xli. f. 10.

Schizorhina sanguinolenta, Voll. Tijd. v. Ent. vii. p. 155, pl. 10, f. 2.

Hab.—Macassar, Menado, Celebes (Coll. Wall.).

This fine species varies much, the ground colour being rich green or deep black, and the red spots and bands either very broad or almost obsolete, pale reddish yellow or deep red. The figures above quoted represent two widely different forms; that of Vollenhoven is badly drawn, being much too wide behind.

Sub.-fam. VI. CREMASTOCHILINÆ.

Gen. XV. Centrognathus, Guérin.

This rare genus has only been found at Malacca.

1. Centrognathus subrugosus, Guérin.

Centrognathus subrugosus, Guér. Rev. Zool. 1840, p. 80.

Hab.—Penang (Coll. Parry, type).

Gen. XVI. Rhagopteryx, Burmeister.

A rare genus, comprising only a single species from Java.

1. Rhagopteryx brahma, Gory & Percheron.

Cremastocheilus brahma, Gory & Perch. Mon. Cet. p. 120, pl. 17, f. 3. *Rhagopteryx brahma*, Burm. Handb. iii. p. 650.

Hab.—Java.

Gen. XVII. Macroma, Gory & Percheron.

A continental genus, of which two species only extend into the western part of the Archipelago, where they appear to be rare.

1. Macroma javanica, Gory & Percheron.

Macroma javanica, Gory & Perch. Mon. Cet. p. 148. pl. 23, f. 5; Burm. Handb. iii. p. 645.

Hab.—Java (Coll. Parry).

2. Macroma flavoguttata, Vollenhoven.

Macroma flavoguttata, Voll. Tijd. v. Ent. vii. p. 159, pl. 10, f. 6.

"Atra, nitida, pronoti margine laterali anteriori guttisque quinque flavis. Long. 16 mm." (Voll.).

Hab.—Borneo (Leyden Museum).

Professor Westwood has kindly undertaken the description of the following new genus of this sub-family, a group to which he has given much attention.

Gen. XVIII. Euremina, Westwood.

Gen. nov. corpore parvo, oblongo, supra planiusculo, habitu *Cremastochilorum*, nonnullorum necnon *Cnemidarum* (*Rutelidarum*); *Macromati* tamen magis affine.

Caput vertice in tuberculum parvum subconicum prominente; *clypeo* emarginato; *antennæ* 10-articulatæ, formæ ordinariæ; *maxillæ* mandone in medio marginis interni dente præditæ, lobo apicali simplici, longe piloso; *mentum* truncato-cordatum, margine antico profunde emarginato, parte antica impressa. *Prothoraæ* sub-heptagonus, supra planiusculus; *prosternum* simplex, medio marginis antici in angulum parvum conicum productum; *meso-* et *meta-sterna* simplicia. *Elytra* planiuscula, glabra; in medio longitudinaliter sulcata et striata. *Abdomen* (in individuo nostro unico) infra haud sulcatum, segmento penultimo utrinque haud tuberculato. *Pedes* sat graciles, *tibiis* 2 anticis tri-, 4 posticis bi-denticulatis; *tarsis* gracilibus, 5-articulatis.

1. Euremina agnella, Westwood. (Pl. XIV. fig. 9).

Nigra, nitida; capite et pronoto rude punctatis; elytris nigris, basi rufis, colore rufo in marginem lateralem et ad suturam longitudinaliter extenso, in medio profunde sulcatis et striolis in profunditate impressis.

Long. corp. lin. $5\frac{1}{2}$.

Hab.—Penang (Dom. Lamb).

Explanation of the Plates.

Plate XI.

Fig. 1. *Heterorhina mitrata*, p. 528.
2. ,, *borneensis*, p. 528.
3. ,, *modesta*, p. 529.
4. *Clinteria flora*, p. 533.
5. *Macronota celebensis*, p. 548.
6. ,, *castanea*, p. 549.
7. ,, *cervina*, p. 553.
8. *Lomaptera striata*, p. 535.

Plate XII.

Fig. 1. *Lomaptera concinna*, p. 542.
2. ,, *inermis*, p. 545.
3. *Macronota thoracica*, p.554.
4. ,, *Mouhotii*, p. 555.
5. ,, *marmorata*, p. 557.
6. ,, *annæ*, p. 558.
7. ,, *variegata*, p. 552.
8. *Euryomia trivittata*, p. 565.

Plate XIII.

Fig. 1. *Plectrone tristis*, p. 546.
2. *Anacamptorhina fulgida*, p. 563.
3. *Euryomia cincta*, p. 566.
4. ,, ,, , var., p. 566.
5. ,, *bella*, p. 567.
6. ,, *raja*, p. 564.
7. ,, *rustica*, p. 565.
8. ,, *celebensis*, p. 568.
9. ,, *lateralis*, p. 569.

Plate XIV.

Fig. 1. *Euryomia incerta*, p. 575.
2. ,, ,, p. 575.
3. ,, *aromatica*, p. 577.
4. ,, *cretata*, p. 577.
5. ,, *Bowringii*, p. 573.
6. ,, *fulvipicta*, p. 576.
7. *Cetonia celebica*, p. 581.
8. ,, *ciocolatina*, p. 579.
9. *Euremina agnella*, p. 590.

Tables shewing the distributon of the Malayan *Cetoniidæ*.

Distribution of Species.	INDIAN REGION.					AUSTRALIAN REGION.																
	Indo-Malay Islands.					Celebes.		Moluccan Group.								Papuan Islands.			Timor Group.			N. Hebrides & Solomon Is.
	Malacca and Singapore.	Sumatra.	Java.	Borneo.	Philippines.	Celebes.	Sulla Isl.	Batchian.	Kaioa Isl. & Ternate.	Gilolo.	Morty Isl.	Bouru.	Ceram and Amboyna.	Goram and Matabello.	Ké Isl.	Aru Islands.	Mysol.	Waigiou.	N. Guinea & Salwatty.	Lombock.	Flores.	Timor.	
CETONIIDÆ.																							
Goliathinæ.																							
MYCTERISTES.																							
1. rhinophyllus	–	–	1																				
2. Cumingii.....	–	–	–	–	1																		
HETERORHINA.																							
1. bicornis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	
2. florensis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1		
3. malayana.	1																						
4. ornata.....	–	–	–	–	1																		
5. biguttata.....	–	–	–	–	1																		
6. Petelii	–	–	1																				
7. dives	–	–	–	–	1																		
8. nigrotestacea	1																						
9. confusa	–	–	1	–	1																		
10. Macleaii	–	–	–	–	1																		
11. decora.....	1	1	1																				
12. borneensis	–	–	–	1																			
13. mitrata.....	1																						
14. modesta	–	–	–	–	–	1																	
15. læta.....	–	–	1																				

Gymnetinæ.																								
CLINTERIA.																								
1. atra	–	–	1																					
2. flavomarginata	–	–	1																					
3. sexpustulata	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1		
4. egens	1	–	–	1																				
5. Bowringii	–	–	1																					
6. malayensis	1																							
7. cinctipennis	–	–	1																					
8. dives	–	–	–	1																				
9. vidua		1																						
10. flora	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1			
AGESTRATA.																								
1. orichalca	1	–	1	1																				
2. luzonica	–	–	–	–	1																			
3. Parrii	–	–	–	1																				
LOMAPTERA.																								
1. striata	1	–	–	1																				
2. timoriensis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1		
3. pulla	1	–	–	–	1																			
4. agni	1																							
5. virens	–	–	–	–	–	–	–	–	–	–	–	–	1											
6. D'Urvillii	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1					
7. Latreillii	–	–	–	–	–	–	–	–	1															
8. rugata	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	
9. esmeralda	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	
10. olivacea	–	–	–	–	–	–	–	1	–	1	1													
11. Wallacei	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1							C. York.	
12. wallisiana	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	
13. fasciata	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	1					
14. aruensis	–	–	–	–	–	–	–	–	–	–	–	–	–	1										
15. ceramensis	–	–	–	–	–	–	–	–	–	–	–	–	1											
(cambodiensis)																								

	Distribution of Species.	INDIAN REGION.					AUSTRALIAN REGION.																	
		Indo-Malay Islands.					Celebes.		Moluccan Group.								Papuan Islands.				Timor Group.			
		Malacca and Singapore.	Sumatra.	Java.	Borneo.	Philippines.	Celebes.	Sulla Isl.	Batchian.	Kaioa Isl. & Ternate.	Gilolo.	Morty Isl.	Bouru.	Ceram and Amboyna.	Goram and Matabello.	Ké Isl.	Aru Islands.	Mysol.	Waigiou.	N. Guinea & Salwatty.	Lombock.	Flores.	Timor.	N. Hebrides & Solomon Is.
	LOMAPTERA—*cont.*																							
16.	concinna	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1							
17.	validipes	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1				
18.	xanthopus	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1				
19.	pygidialis	–	–	–	–	–	–	–	–	1														
20.	batchiana	–	–	–	–	–	–	–	1	–	1	1												
21.	australis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
22.	punctata	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
23.	adelpha	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1							
24.	papua	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1				
25.	inermis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1				
	Macronotinæ.																							
	CLEROTA.																							
1.	budda	1	–	1																				
	PLECTRONE.																							
1.	nigrocærulea	–	–	–	–	1																		
2.	tristis	1	–	1																				
	CHALCOTHEA.																							
1.	smaragdina	1	–	1																				
2.	affinis	–	–	–	1																			
3.	resplendens	–	–	1																				

	Macronota.																									
1.	Diardi	1	1	–	1																					
2.	trisulcata	–	–	1																						
3.	aciculata	–	–	1																						
4.	Ludekingii	–	1																							
5.	celebensis	–	–	–	–	–	1																			
6.	castanea	–	–	–	–	–	1																			
7.	luctuosa	–	–	–	–	–	–	–	–	–	–	–	–	1												
8.	nigerrima	–	–	–	–	–	1																			
9.	vidua	–	–	–	–	1																				
10.	guttulata	–	–	–	–	1																				
11.	patricia	–	–	1																						
12.	clathrata	–	–	1																						
13.	regia	1	1	1	1	1	1	–	1	1	1	1	–	–	–	–	1	1	1	1						
14.	variegata	1																								
15.	cervina	1																								
16.	corticalis	1																								
17.	thoracica	–	–	–	–	–	1																			
18.	flavopunctata	–	–	–	–	1																				
19.	philippinensis (Mouhotii)	–	–	–	–	1																				
20.	suturalis	1	1	–	1																					
21.	cineracea	–	–	1																						
22.	antiqua	–	–	1																						
23.	carbonaria	–	–	1																						
24.	monacha	1	–	1	1																					
25.	elongata	1	–	–	1																					
26.	marmorata	–	–	–	1																					
27.	annæ	1																								
28.	picta	1	–	1	1																					
29.	egregia	–	–	1																						
30.	malabariensis	1																								
31.	Rafflesiana	1	1	–	–	–	1																			
32.	quadrilineata	–	–	1																						
33.	antennata	1																								

Distribution of Species.	INDIAN REGION. Indo-Malay Islands. Malacca and Singapore.	Sumatra.	Java.	Borneo.	Philippines.	AUSTRALIAN REGION. Celebes. Celebes.	Sulla Isl.	Moluccan Group. Batchian.	Kaioa Isl. & Ternate.	Gilolo.	Morty Isl.	Bouru.	Ceram and Amboyna.	Goram and Matabello.	Ké Isl.	Papuan Islands. Aru Islands.	Mysol.	Waigiou.	N. Guinea & Salwatty.	Timor Group. Lombock.	Flores.	Timor.	N. Hebrides & Solomon Is.
Schizorhininæ.																							
SCHIZORHINA.																							
1. flammula	–	–	–	–	–	–	–	–	–	–	–	–	1										
2. nigerrima	–	–	–	–	–	–	–	1	–	–	1												
3. emilia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
4. Whitei	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1								
5. aruana	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1							
6. bouruensis	–	–	–	–	–	–	–	–	–	–	–	1											
ANACAMPTORHINA.																							
1. ignipes	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1				
2. fulgida	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1				
Cetoniinæ.																							
EURYOMIA.																							
1. felina	–	–	–	–	–	1																	
2. raja	1																						
3. rustica	–	–	–	1																			
4. trivittata	–	–	–	–	–	–	–	–	–	–	–	1											
5. cincta	1																						
6. marginicollis	1																						

	Euryomia—*cont.*																							
7.	binotata	1	–	–	1																			
8.	regalis	–	–	–	–	–	1																	
9.	sumatrensis	–	1																					
10	Forsteni	–	–	–	–	–	1																	
11.	bella	–	–	–	–	–	–	–	1															
12.	quadriguttata	–	–	–	–	–	–	–	1	–	1	1	–	1										
13.	celebensis	–	–	–	–	–	1																	
14.	æthiessida	–	–	–	–	1																		
15.	aterrima	–	–	1																				
16.	papua	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1				
17.	lateralis	–	–	–	–	–	–	–	–	–	–	–	–	1										
18.	perviridis	–	–	–	–	–	–	–	–	–	–	–	–	1	1									
19.	malayensis	1	–	1	1																			
20.	tenera	1	–	1																				
21.	aspera	1																						
22.	moluccarum	–	–	–	–	–	1	–	1	1	1	1												
23.	vernalis	–	–	–	–	1																		
24.	rufovittata	1	–	–	1																			
25.	Bowringii	1	–	–	1																			
26.	quadricolor	1	–	1																				
27.	glauca	–	–	–	–	–	–		–	–	–	–	–	1	–	–	–	1						
28.	sinuata	1	–	–	1																			
29.	labecula	–	–	–	–	–	1																	
30.	modesta	1	1	1	1	1																		
31.	cuculus	–	–	–	–	1																		
32.	Swainsonii	–	–	1																				
33.	incerta	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	1	1	–	–	1	
34.	fulvipicta	–	–	–	–	–	–	–	–	–	–	–	1											
35.	cretata	–	–	–	–	–	1																	
36.	aromatica	–	–	–	–	–	–	–	1	1	–	1												
37.	plagiata	–	–	1																				
38.	penanga	1																						
39.	Macquarti	–	–	1																				
40.	Behrii	–	–	1																				
41.	festiva	–	? 1																					

Distribution of Species.	INDIAN REGION.					AUSTRALIAN REGION.															
	Indo-Malay Islands.				Philippines.	Celebes.		Moluccan Group.									Papuan Islands.			Timor Group.			
	Malacca and Singapore.	Sumatra.	Java.	Borneo.		Celebes.	Sulla Isl.	Batchian.	Kaioa Isl. & Ternate.	Gilolo.	Morty Isl.	Bouru.	Ceram and Amboyna.	Goram and Matabello.	Ké Isl.	Aru Islands.	Mysol.	Waigiou.	N. Guinea & Salwatty.	Lombock.	Flores.	Timor.	N. Hebrides & Solomon Is.
CETONIA.																							
1. spectabilis	–	–	1																				1
2. bifenestata	–	–	–	–	1																		
3. ciocolatina	–	–	–	–	–	1																	
4. procera	–	–	–	–	1																		
5. inanis	–	–	1																				
6. celebica	–	–	–	–	–	1																	
7. philippensis	–	–	–	–	1																		
8. Gucrini	–	–	–	–	1																		
9. ferruginea	–	–	–	–	1																		
10. anovittata	–	–	–	–	1																		
11. Bremi	–	–	–	–	1																		
12. dubia	–	–	–	–	1																		
13. bipunctata	–	–	–	–	–	1																	
14. prolongata	–	–	–	–	–	–	–	–	1														
15. obtusa	–	–	1	–	–	–	–	1	–	1	1	1	1	1	1	1	–	–	–	–	–	–	
16. facitarna	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
17. manillarum	–	–	–	–	1																		
18. acuminata	1	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	
19. mandarinea	1	1	1	1	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	
20. arrogans	–	–	–	–	1																		
21. ciliata	–	1	1																				
22. porcina	–	–	1																		1		
23. solorensis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	

CETONIA—*cont.*																						
24. obscurella	–	1	1																			
25. crassipes	1																					
26. mixta	–	1																				
27. cupripes	–	–	1																			
28. guttulata............	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
29. resplendens	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
30. megaspilota	–	–	–	–	1																	
31. francolina	–	–	–	–	1																	
32. irrorata	–	–	–	–	1																	
STERNOPLUS.																						
1. Schaumii	–	–	–	–	–	1																
Cremastochilinæ.																						
CENTROGNATHUS.																						
1. subrugosus.........	1																					
RHAGOPTERYX.																						
1. brahma..............	–	–	1																			
MACROMA.																						
1. javanica	–	–	1																			
2. flavoguttata	–	–	–	1																		
EUREMINA.																						
1. agnella..............	1																					

Number of Species.	Distribution of Genera.	INDIAN REGION.					AUSTRALIAN REGION.																
		Indo-Malay Islands.				Philippines.	Celebes.		Moluccan Group.								Papuan Islands.				Timor Group.			N. Hebrides & Solomon Is.
		Malacca and Singapore.	Sumatra.	Java.	Borneo.		Celebes.	Sulla Isl.	Batchian.	Kaioa Isl. and Ternate.	Gilolo.	Morty Isl.	Bouru.	Ceram and Amboyna.	Goram and Matabello.	Ké Isl.	Aru Islands.	Mysol.	Waigiou.	N. Guinea & Salwatty.	Lombock.	Flores.	Timor.	
2	Mycteristes	–	–	1	–	1																	
15	Heterorhina	4	1	4	1	5	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	
10	Clinteria.....	2	1	4	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	
3	Agestrata	1	–	1	2	1																		
25	Lomaptera	3	–	–	1	1	–	–	2	2	2	2	–	2	–	1	4	2	2	6	1	–	–	5
1	Clerota	1	–	1																				
2	Plectrone	1	–	1	–	1																		
3	Chalcothca.....	1	–	2	1																			
33	Macronota	13	5	12	7	5	6	–	1	1	1	1	–	1	–	–	1	1	1	1				
6	Schizorhina	–	–	–	–	–	–	–	1	–	–	1	1	1	1	1	1	–	–	–	–	–	–	1
2	Anacamptorhina .	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2				
41	Euryomia	13	3	9	7	4	7	–	4	2	2	3	1	5	1	–	1	3	1	2	–	–	1	
32	Cetonia	3	5	9	1	14	4	1	2	2	1	2	1	2	1	1	2	1	1	1	–	2	4	1
1	Sternoplus	–	–	–	–	–	1																	
1	Centrognathus ...	1																						
1	Rhagopteryx	–	–	1																				
2	Macroma	–	–	1	1																			
1	Euremina	1																						
181		44	15	46	23	32	19	1	10	7	6	9	3	11	3	3	9	7	5	12	1	4	7	7

No. of Species.	Distribution of Sub-families.	INDIAN REGION.		AUSTRALIAN REGION.				
		Indo-Malay Islands.	Philippines.	Celebes.	Moluccan Group.	Papuan Islands.	Timor Group.	Islands East of N. Guinea
17	Goliathinæ	9	6	1	–	–	2	
38	Gymnetinæ	13	2	–	7	9	3	5
39	Macronotinæ.....	29	5	6	2	1		
8	Schizorhininæ ...	–	–	–	4	3	–	1
74	Cetoniinæ	32	18	12	11	4	5	1
5	Cremastochilinæ	5						
181	Total Species.	88	31	19	24	17	10	7
		114		70				

Note.—For the information of persons wishing to consult the types of new species, I beg to state that all the insects enumerated in this Catalogue, to the locality of which is appended (Coll. Wall.), are now in the possession of Edwin Brown, Esq., of Burton-on-Trent.

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Note.—Where the name only of an Insect is mentioned, the description of the Insect will be found at the page referred to.

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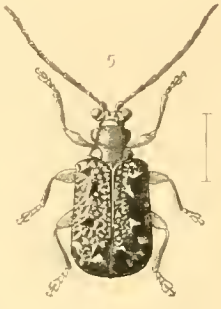

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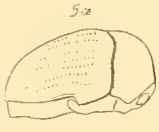

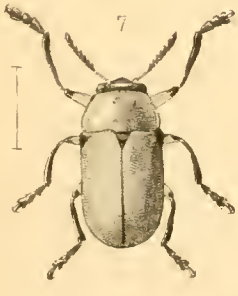

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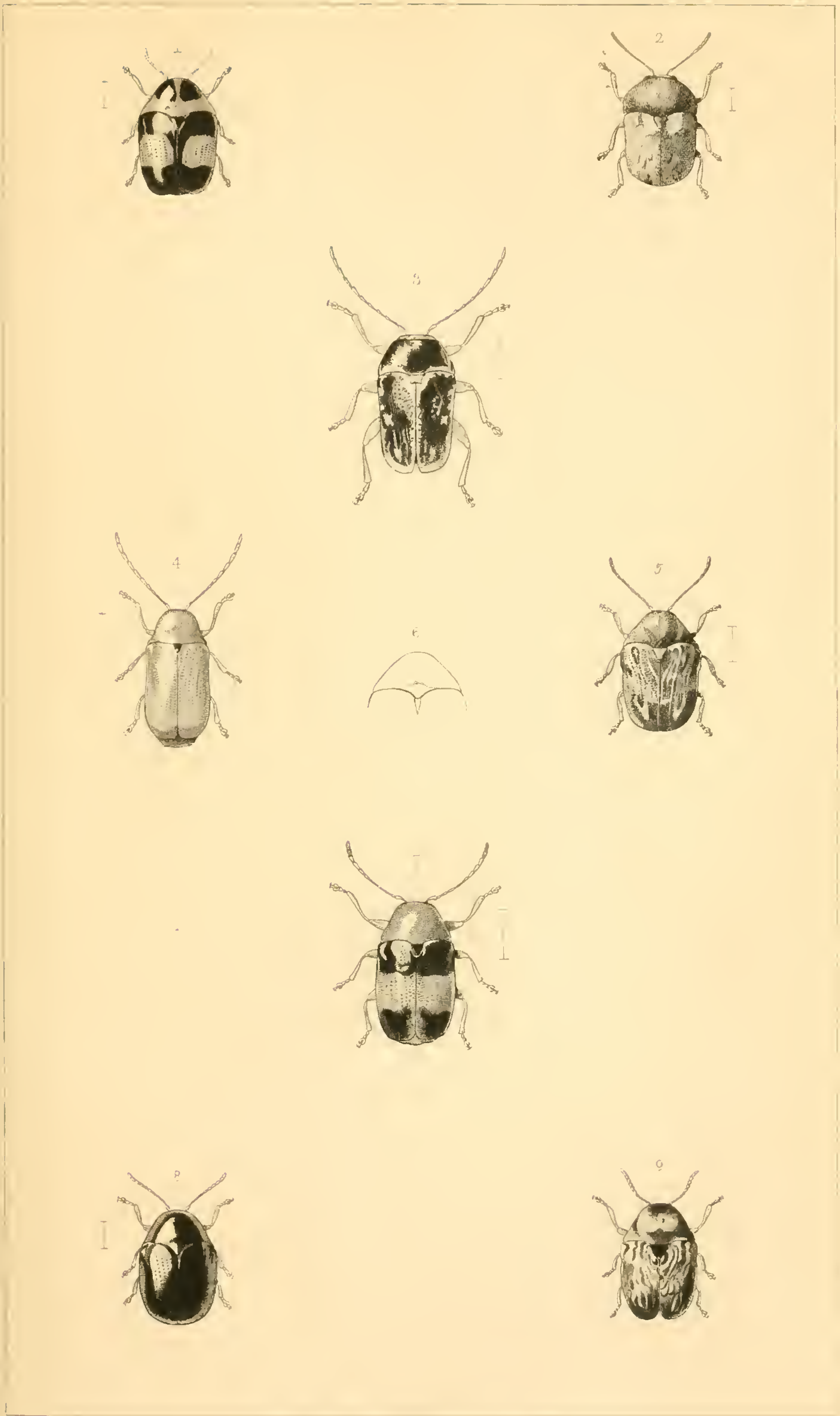

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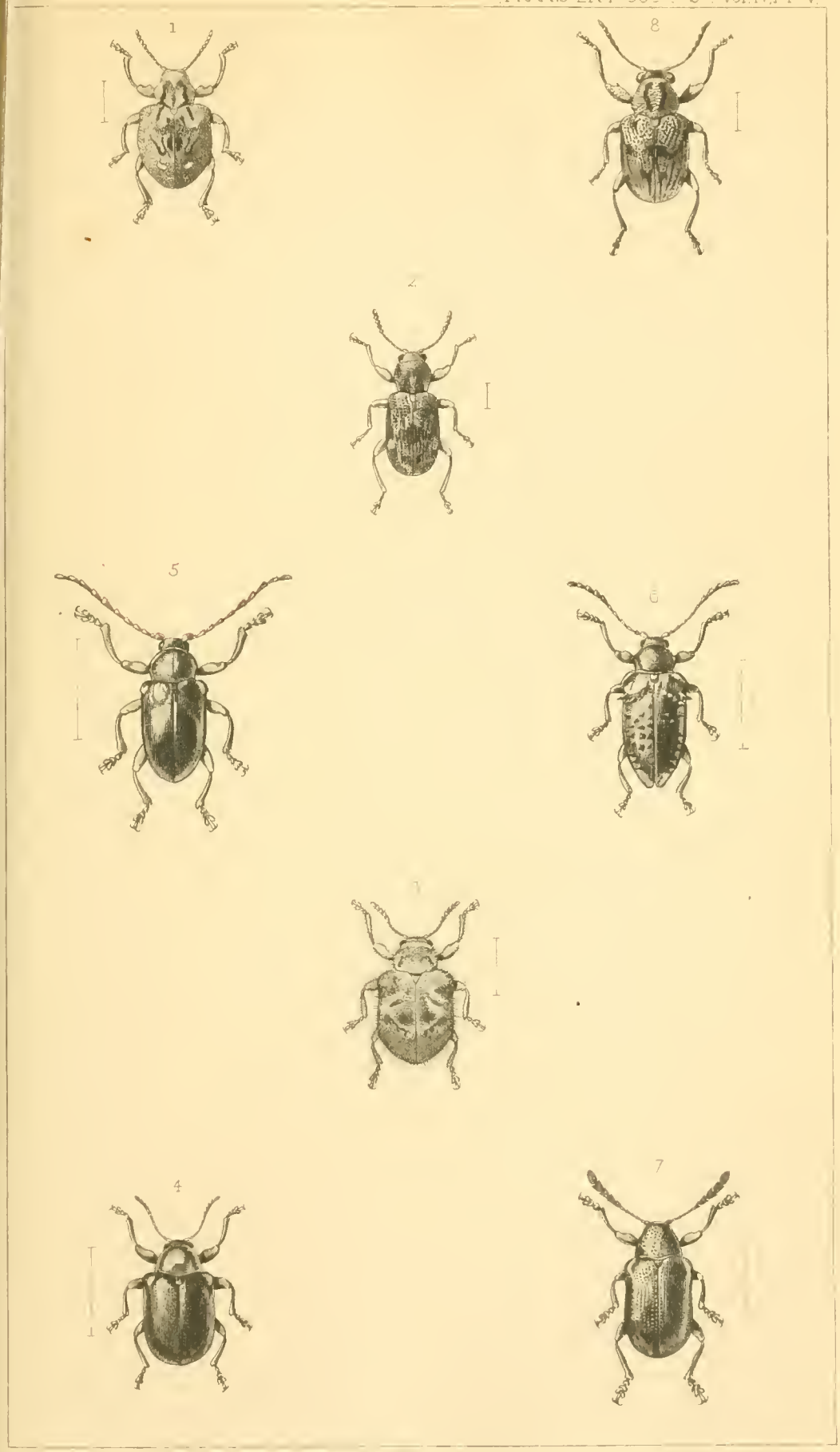

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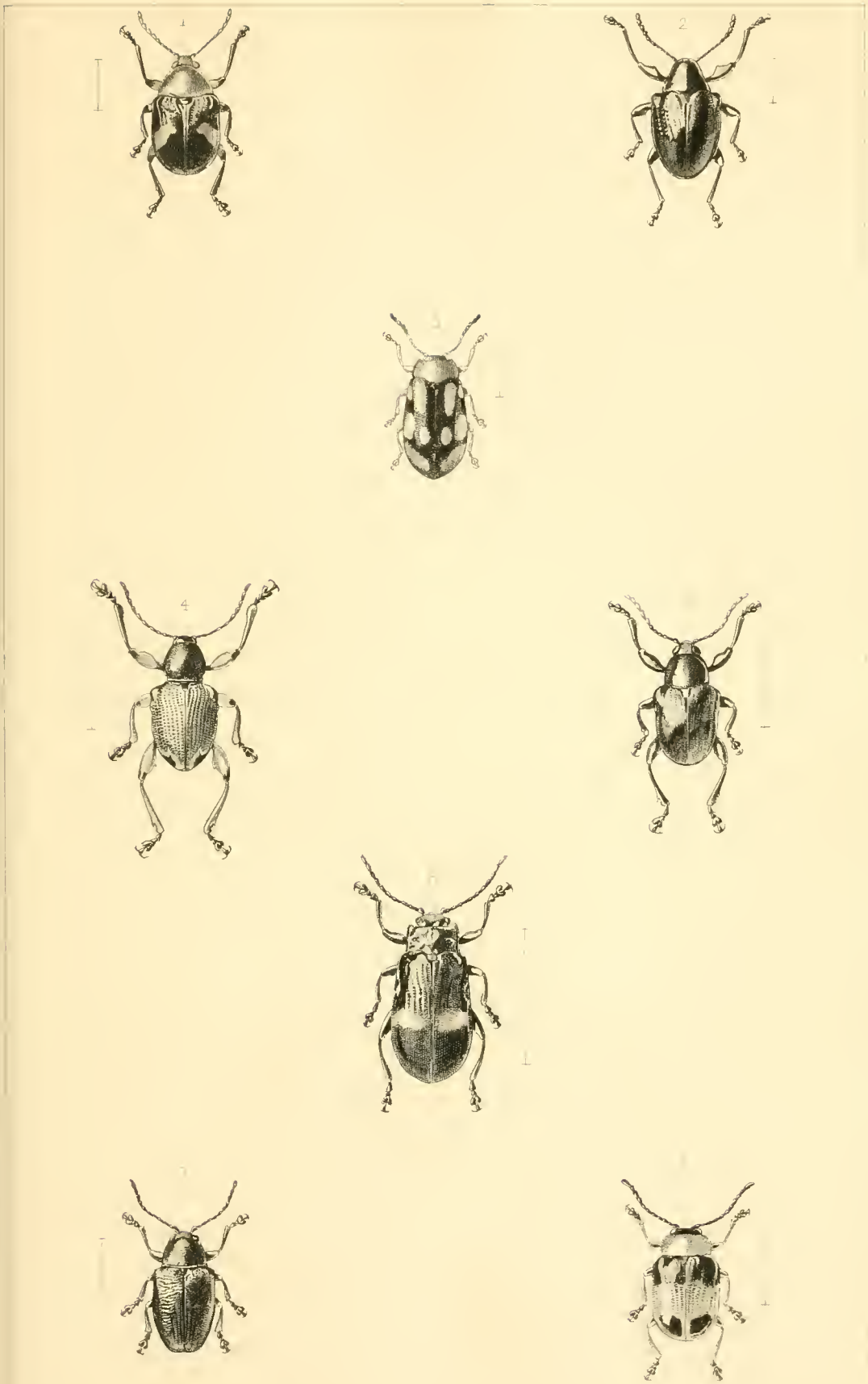

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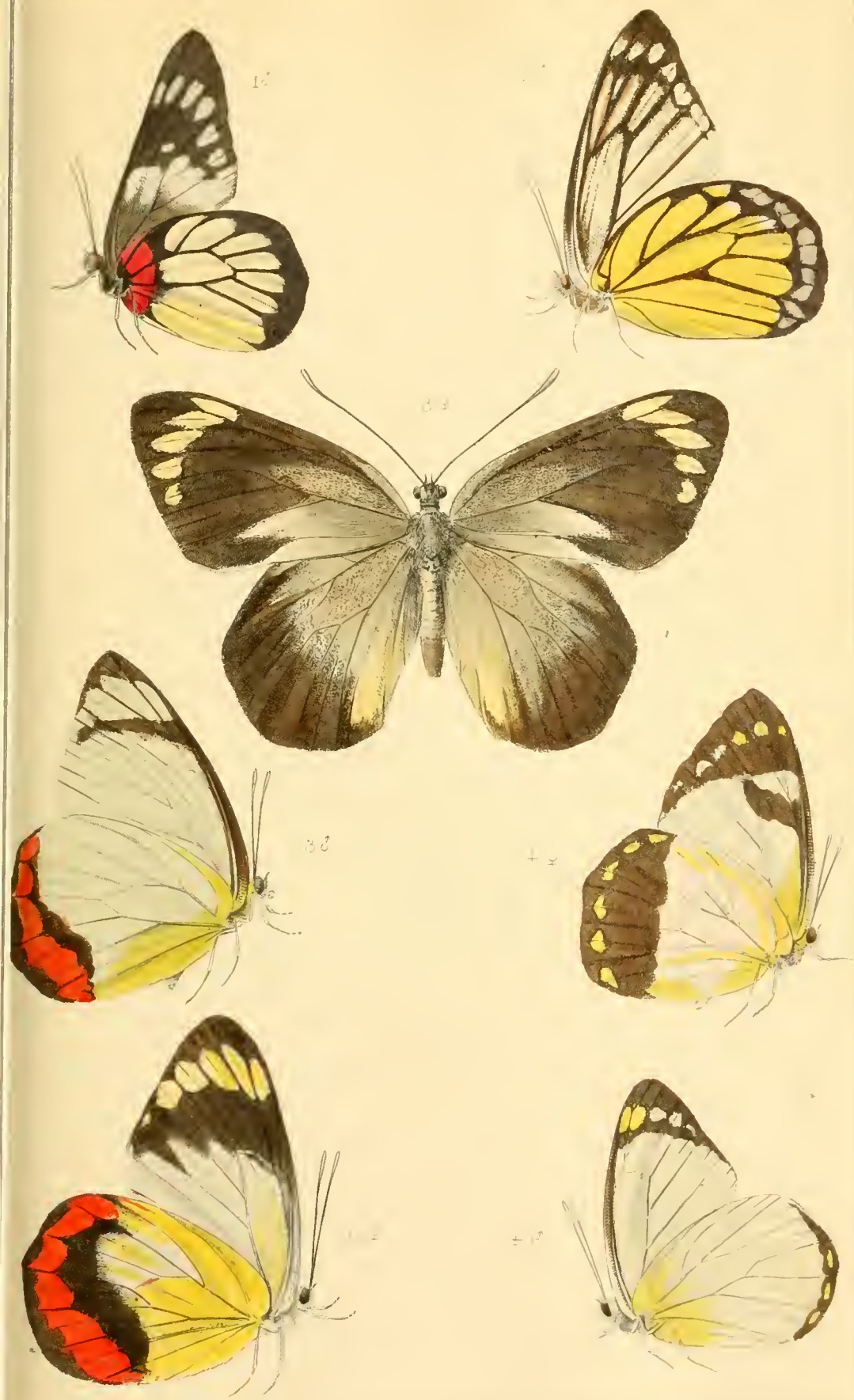

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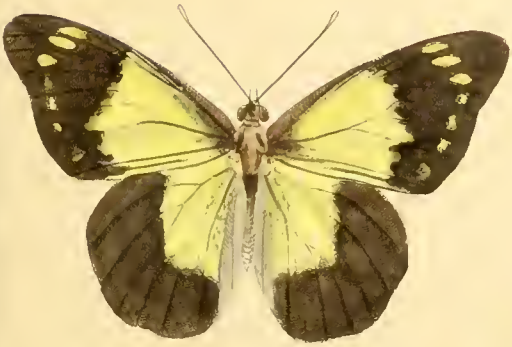

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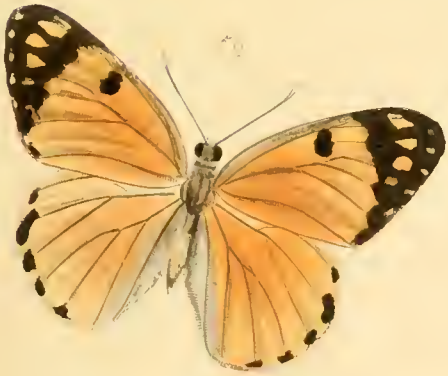

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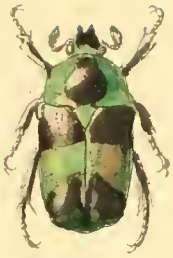

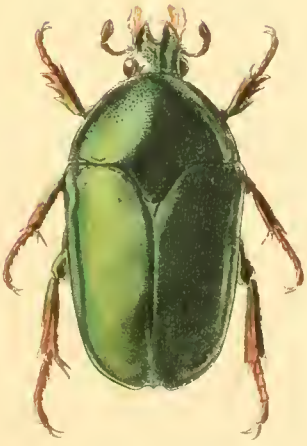

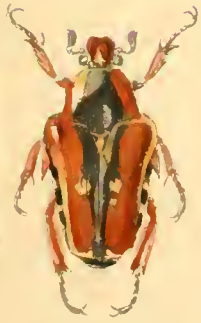

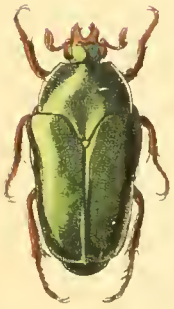

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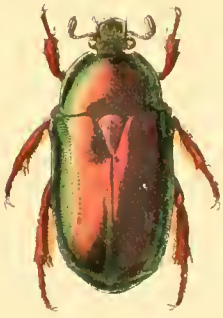

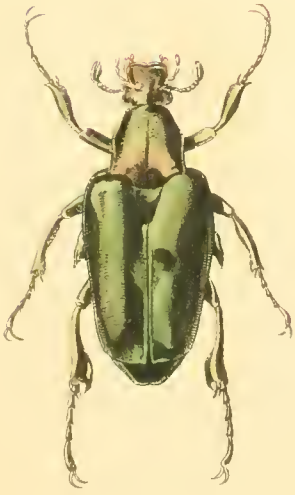

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(Mr. Baly's Introductory Remarks on the Group are reserved until the species are described.)

N.B.—Vols. II. and III. are not yet complete.

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Errata.—Page 93, line 19 from bottom, *for* "Pl. V. fig. 8," *read* "Pl. V. fig. 1."

Page 163, line 12 from bottom, *for* "Pl. V.* fig. 2," *read* "Pl. V.* fig. 5."

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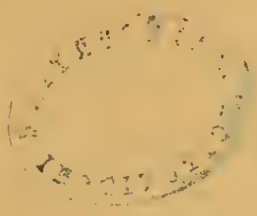

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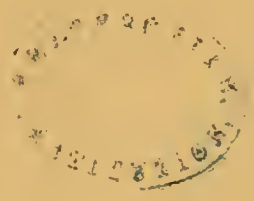

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